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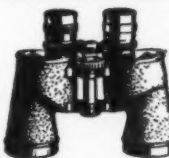


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ELEANOR ANTHONY KING

Editor and Friend

Editor's Note: Eleanor Anthony King died in Lenox Hill Hospital, New York City, on July 5, 1949. She was born in San Antonio, Texas on November 15, 1901, and spent most of her younger life there. Miss King was graduated from the University of Texas with an A.B. degree, was a member of Kappa Kappa Gamma sorority and later was an assistant in the psychology department at the University.

Miss King came to New York City in 1922 where she did writing and editorial work before going with Pictorial Review Magazine. She became a free lance article writer and wrote a book, "Bible Plants for American Gardens." With Miss Wellmer Fessels, Miss King co-authored five other books—"Working With Nature," "Insect People," "Garden Creatures," "You and Your Camera," and "Insect Allies." In the summer of 1942 she came with the National Audubon Society as editor of Audubon Magazine, formerly Bird-Lore.

By Alan Devoe

ELEANOR KING edited *Audubon Magazine* for seven years. During the whole of that time it was my pleasure to work with her and to know her as good friend. It falls to me to write this brief memorial of that association.

The funereal stiffness of the word "memorial" would have repelled Eleanor King. She was a person of immense life-zest and high spirits, a vitality constantly spilling over into laughter, antical jokes, and an uproarious contempt for the narrowly conventional, the pretentious, the stuffy. Even now, writing only a few days after her death, it is not possible to think or speak of the event in quite the kind of dismal, black-plumed words that are usually deemed appropriate to such occasions. It is a sad time, yes; and all of us in the Society are sensible of a great loss.

But we who were friends of Eleanor King know with what a high, sustaining faith she believed in the earth, in nature, and thus in the Nature-of-things. She trusted the earth-scheme. She was satisfied, come good or ill, to follow John Muir's prescription of "lying back upon nature." And after all, for whole-souled naturists, death is as natural a happening as life. It is no more a fearful, alien thing than a star is, or the comings and goings of the migratory birds, or the warmth of the honest sunlight of common day. Eleanor King would not have put it like



Eleanor Anthony King
photographed by Ruth Margaretten

that, but it is what she believed; and this creaturely at-homeness of hers with all natural things, from puppies to prothonotary warblers, takes from her encounter with the final Natural Event all quality of the fundamentally despairing or the terrible. It is a sorrowful thing for all of us that Eleanor King has gone; and she will be long and poignantly missed. But she was always able, with Thoreau, to look at nature as a wholeness—births, deaths, comings, goings, all as parts of the serene Entirety which she loved and trusted—and to say in her own breezy words what the man of Walden said in his famous summary of this broad nature-vision: "I have heard no bad news." When such a whole-souled naturist is returned to earth, it is impossible not to feel that the grimness of death has been handsomely defeated. Death? Why, this is not some alien specter, intruding into the naturality of things. This is a *part* of the naturality of things, along with herons and the taste of apples and the smell of wood-smoke in October. Loving the Whole, who shall be dismayed?

At this point the living Eleanor King would have begun to blue-pencil my script. She would have urged me, in terms of picturesque endearment and

abuse, to halt such high words and get to facts. If I struggled, she would have begun bombarding me with missives written in the improbable identity of a chorus-girl named McSnoyd, to which I would presently have replied in a stately manner in the alleged identity, say, of an unfrocked Archbishop. The files of my correspondence with Eleanor King over the years must be unlike the files of any other author-editor correspondence on earth. I mention it for only one reason. There was a philosopher who remarked that one must be very serious about something in order to have real amusement in life.

It was so with Eleanor King. She took with such dedicated seriousness her work for conservation, for nature-education, for simply Nature, that she was able to regard almost everything else in the world with uproarious levity. It got her misunderstood occasionally, I think, by the perpetually heavy-minded. They thought her frivolous. She was not. She was so deeply serious about Nature that she could afford to take lightly anything lesser. She took her long, long illness in this light-hearted way. She turned the rigors and frustrations of editing into jokes. She made catastrophes merely preposterous. There was in her a deep, central dedication to a nature-vision, an Eden-dream, that took the whole of her seriousness. It also took our *Audubon Magazine* through seven years of its most brilliant editing.

It was Eleanor King who wrought the transformation of the magazine from a soberly printed journal, using few exciting pictures, into the vividly illustrated and far more lively periodical it has become. It was Eleanor King who broadened the magazine's scope, not using less of ornithology but using more of material that would relate ornithology to the rest of nature's whole. It was Eleanor King who stimulated (and browbeat and wheedled and coaxed) many of the best writer-naturalists in the country into

contributing their best work to *Audubon Magazine's* pages. I have never known another editor who made so many suggestions and threw out to writers so many ideas and germs of ideas. Many and many a time she would send me a "suggestion" for an article which would be so carefully outlined that it would be nearly as long as the proposed article itself. Notions, possibilities, thoughts-in-odd-moments . . . these arrived from her over the years in a nearly constant stream of letters, postcards, telephone calls. In May, Eleanor King would be broadcasting letters to her contributors, suggesting article ideas for the November-December issue. She was forever prodding photographers for fine pictures, conferring with layout experts about new and dramatic possibilities, gathering research-material which might make a good article even better. For the energy and devotion of Eleanor King as Editor, all of us in the Society will always be profoundly grateful.

It must surely be usual, in writing such a memoir as this of an editor and old friend, to give at least some information about the facts of the subject's life-story. I cannot do so; and for a reason that says a great deal about Eleanor King. I do not know the facts. In the seven years of our friendship and our working together, Eleanor King never mentioned her college teaching, never mentioned her literary and editorial work before coming to *Audubon Magazine*, never uttered a solitary word of personal information. She had written several books; I never had a hint of it. Eleanor King had a cause: Nature. To that she gave all her seriousness and all her heart. It never occurred to her that anything else—least of all the facts of her own life, and the details of her accomplishments—should be taken very seriously or thought of much consequence.

If there is anything that could better stand as a tribute to a fine and uncommon spirit, I do not know what it is.



*Photograph courtesy
U. S. Forest Service*

NORTHERN BIRDS AT A COSTA RICAN FEEDING S

By Alexander F. Skutch

IN Central America many people keep wild songbirds in cages; few provide them with feeding-shelves and bird-baths, or consider which plants will most attract them to their dooryards. I myself have seen only three feeding-shelves in Central America. The first was that

maintained by Dr. Frank M. Chapman in the little clearing in the forest on Barro Colorado Island in Gatún Lake in the Panamá Canal Zone, during his sojourns there in the dry season. When I last saw this, in 1935, it was visited only by the pair of brilliant crimson-backed tanagers that dwelt and nested in the clearing, and by a single quadruped,

José, the famous coatimundi, that had learned to climb along the horizontal trolley wires by which the tray was suspended several yards above the ground and at a good distance from the supports. Fragrant ripe bananas lured him to perform this incredible acrobatic feat and rewarded his strenuous efforts. I am told that in recent years feeding-shelves have become more popular in the Panamá Canal Zone, but I have not been there lately.

The second feeding-shelf that I saw in the tropics was in the Valley of El General in southern Costa Rica. This one was maintained by a barefoot farmer, a most remarkable self-taught man, who took an interest in birds and trees and orchids in the midst of neighbors who with few exceptions had little to live for

other than raising corn, hogs, and sugarcane, thereby scratching together—if they were exceptionally hard-working and fortunate — penurious fortunes which they did not know how to enjoy. Naturally these tight-fisted, hard-bitten *campesinos* considered Don Isaías, who fed the birds many good bananas which they would have used to fatten hogs, a curious character.

Don Isaías' feeding-shelf attracted a colorful variety of resident and migratory birds. When I first came to El General as a wandering collector of plants and watcher of birds, Don Isaías was one



Illustrations by
Robert Seibert



NG STATION

"The summer tanager, Tennessee warbler and Baltimore oriole are . . . regular attendants at my table."

Left to right: summer tanager, Tennessee warbler, scarlet tanager and Baltimore oriole.

of the very few residents whom I visited with pleasure. In those pre-highway days when El General was an isolated community shut in by great forests and high mountains, easy to reach only by the newly-established airplane service, most people were short of money. Although Don Isaías was as poor as others, his always clean little two-room dwelling, roofed with red tiles and walled by rough unpainted boards, was attractive amidst flowering shrubs and blossoming orchids. It was pleasant on a warm afternoon to sit on the little porch, eating one of the big sweet oranges of which my host seemed to have an inexhaustible supply, and to chat with him while I watched the birds come in a constant stream to the table in the yard.

Later, when I settled on my own farm on the opposite side of the Valley of El General, I fastened a board in a guava tree beside the house. Beginning early in 1943, I placed bananas there daily. At first the birds in the yard ignored my offering, but I was not discouraged. First to come to the table, and ever since my most constant guests, were the song tanagers, the males velvety black with an intensely scarlet rump, the more numerous females olive with bright orange on the breast and rump. Little by little other local species, chiefly tanagers, discovered here a reliable supply of delicious food. After two years, 15 kinds of birds were regular or occasional attendants. Thereafter additional species were attracted more slowly. It was a

"When I settled on my own farm on the opposite side of the Valley of El General, I fastened a board in a guava tree beside the house." Photograph courtesy United Fruit Company.



great day when the retiring black-striped sparrow that lurked beneath the hedges about the yard overcame his shyness and flew up to the board and ate. On June 13, 1946, I first saw a male red-crowned woodpecker at the table. Later his mate came, and the following year they brought their two youngsters, one of each sex, to be fed close to the food supply.

Two more years have passed without bringing any new kind of visitor. Apparently I have drawn all the banana-eating birds in the vicinity, but I continue to wonder why the lovely and abundant blue-rumped green tanager passes by the board without ever stopping to eat, although three other no less brilliant species of that amazingly bright and varied genus *Tangara* are regular attendants. Still, I have attracted 22 species of birds with a single kind of food, and am not inclined to complain. I have made no bid for the patronage of the grain-eaters; but blue-black grosbeaks and white-fronted doves constantly come to eat maize in the thatched corn-crib on the lower terrace, or even from the lawn close by the house where we feed the chickens.

The visitors to my table include nine of the 16 kinds of tanagers on the farm, five of the six species of honeycreepers, three finches, two kinds of woodpeckers, an oriole, a warbler and a thrush—as colorful an assemblage of small birds as one can find anywhere. During rainy spells in October and November they come in greatest numbers and crowd the table with as many birds as can find standing-room on a board 15 inches square. They hold one spellbound with constantly shifting patterns of brilliant colors—red, orange, yellow, green, blue of many shades, white, black, brown and gray—and devour as many bananas and plantains as I can provide for them.

I should like to tell something of each of these 22 kinds of birds: how the male yellow-browed tanager gallantly feeds his mate while she stands helping her-



Crimson-backed tanagers visited Frank M. Chapman's feeding station in a forest clearing on Barro Colorado Island, Panama Canal Zone.

self to a banana far bigger than she can eat; how the black-winged palm tanagers year after year carry off food to a nest I have never been able to find (tucked beneath some neighbor's thatched roof, I suspect); how at the proper time each pair of old attendants introduces its youngsters to this avian restaurant; how the presence of this constant supply of food has induced shy birds to nest close by the house. They have lost so much of their shyness toward me that, at last, I have succeeded in making satisfactory studies of their home-life. But I wish to tell especially about the four kinds of visitors from far in the North that have done me the honor to eat at my table.

The first migrant that I saw on the feeding-shelf was a summer tanager that came on December 24, 1943. It wore the yellowish female plumage, but a slight tinge of red on the rump suggested that it might be a young male. Most distrustful, it dropped down from the branches of the guava tree to the board, jabbed its bill hurriedly into a banana a few times, then darted up and away. Since that day summer tanagers have

been constant visitors to the shelf during their sojourn on my farm, but they are always shy and suspicious. Usually they eat so hurriedly that I have wondered whether they did not later suffer from indigestion, after they had dashed back into the sheltering foliage. Unlike scarlet tanagers, which here are transients



"Blue-black grosbeaks . . . constantly come to eat maize in the thatched corn-crib of the lower terrace."

journeying to or from their winter home in South America, adult male summer tanagers wear their nuptial attire throughout the year. They are the only all-red visitors to my table and add a welcome dash of color. During some winters young males in transitional plumage have also been here. Their first red feathers appear in November or December. It is interesting then to watch the red spread gradually over their bodies in irregular pattern, contrasting prettily with the yellowish ground-color. The change is slow, and many young males leave for the North in motley attire, half red, half yellowish orange.

Summer tanagers are most unsociable in their winter home. They never flock and each appears to claim a territory from which it tries to drive away others of its kind. When quarreling over terri-

tory, males not infrequently voice fragments of song and sometimes sing at greater length, but in subdued tones. I have known an individual with no trace of red in its plumage to sing under these circumstances just after its arrival in October, but whether it was a female or young male I could not tell.

Because of their mutual antagonism, which is manifested irrespective of sex, I rarely see two summer tanagers on the feeding-board at one time. If several are about, as happened in the winter of 1947-48, the latecomers wait respectfully on neighboring boughs until the one on the shelf flies away. Summer tanagers arrive in Costa Rica late and leave early. Usually they reach my farm during the first week of October and stay until early April. This year I saw a female in the woods at the unusually late date of April 17.

In March, 1944, I first saw Tennessee warblers on the feeding-shelf. This surprised me greatly, because I had never before known this little greenish gray bird to eat fruit of any kind. Indeed, in the whole wood-warbler family, fruit-eating is rather exceptional, insects being the preferred diet of these active birds. As usual, the pioneer Tennessee warbler was shy, hesitating long to alight on the board in my presence, although the regular attendants continued to come and go without fear. After this first appearance, Tennessee warblers rapidly formed the habit of eating bananas and were soon among the most abundant visitors. I have often seen eight or nine on the board at once, with others waiting among the neighboring boughs. Although gregarious, these little warblers are not entirely friendly, and often two rivals rise up into the air, sparring face to face, but soon separate and return to eat in peace. Since they started to visit my table, I have seen them eat wild fruits, including the green-fruited catkins of the cecropia tree. Compared with ripe bananas, this seems to be a harsh and unpalatable

fare; but birds of many kinds depend largely upon these cecropia fruits during the dry season when more succulent food is scarce.

Tennessee warblers are numerous during the winter in Central America, chiefly at middle altitudes, between 2,000 and 6,000 feet above sea-level. Although a few winter in the lowlands, others occur still higher in the mountains. The shade trees of the great coffee plantations are especially attractive to them. They swarm there in vast numbers through the open crowns, probing the clustered white stamens of the flowering *Inga* trees. I think "coffee warbler" would be a more suitable name for these birds than Tennessee warbler. Some of them pass through Tennessee on their way to and from Canada in spring and fall, but they neither nest nor linger there; whereas the coffee plantations of Central America are their favorite abode during half the year. On my farm they arrive during October and remain until the last week of April. This year I saw my latest Tennessee warbler at the feeding-shelf on April 30.

Orchard orioles prefer the hot lowlands while in Central America. Only rarely do they pay a brief visit to my farm 2,500 feet above sea-level. The hardier and more adaptable Baltimore orioles pass the winter at altitudes ranging from the coast up to 8,500 feet, where from November to March they endure the penetrating cold of frosty highland nights. Here they are with me in numbers every winter, often roosting in the orange trees, where in the beam of the electric torch the males slumbering amidst the dense, dark green foliage look more like deeply colored oranges. They first came to the feeding-shelf in March, 1944, and since then, have been constant and abundant attendants. Although they travel in loose flocks during the winter, they are by no means as sociable as the song tanagers.

Each Baltimore oriole wants to be the only one of its kind on the table. As a

rule they eat in turn at the feeding station rather than simultaneously, although at times, two will be on the board together. Yet they make no serious objections when birds of other species eat beside them, provided they are not crowded too closely. As the time for their northward departure ap-



"First to come to the table, and thereafter my most constant guests, were the song tanagers."

proaches, and less after their arrival in the autumn and rarely even during the winter months, the male orioles voice bright fragments of song, although they seldom sing in a sustained fashion. They arrive between September 10 and the beginning of October and linger until the final ten days of April. For each of the past five years that I have seen my latest Baltimore oriole at the feeding-shelf, the range in dates has been only from April 20 to 26, indicating that the last orioles are quite constant in their time of withdrawal. Indeed, during ten years, my latest spring records for Costa Rica have ranged only from April 15 to 28.

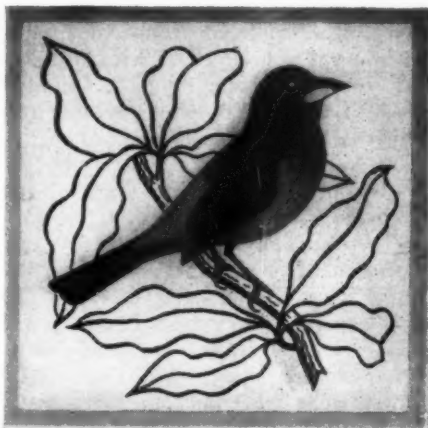
These three species—summer tanager, Tennessee warbler and Baltimore oriole—are abundant winter visitors to my farm and regular attendants at the table.

A fourth species is a rare visitor and has only once honored my board. In the afternoon of April 11, 1945, an indigo bunting clad in brown—without much doubt a female—came repeatedly to eat bananas. Somewhat afraid of the bigger Gray's thrushes and song tanagers, she would fly away as one of them alighted on the table. Again and again she returned to eat more. She was back before sunrise next morning, and came many times throughout that day and the four days following. Gradually she grew more confident on the table, both while I looked on and when bigger birds arrived to eat beside her. After six days' attendance at the feeding-shelf she left, probably during the night of April 16. It is now more than three years since I have seen one of her kind at the table. Incidentally, she provided my latest spring record of the occurrence of the indigo bunting in Costa Rica.

These four, and some 50 other kinds of birds from the United States and Canada that I have met in this vicinity, either as transients or winter visitants, remind me forcibly that the protection of birds is a truly international affair. I wonder how many of those citizens of northern countries who watch eagerly for the arrival of the birds in spring, who provide them with food, plant shrubbery to shelter their nests, protect them zealously against all enemies, place bands on their legs, and regretfully note the departure of the latest loiterer of fall—I wonder how many of these good people follow their beloved birds in thought to the lands whither they are bound? Do they visualize the catbird, that nested so tamely in their yard, as lurking amidst strange, lush, huge-leaved herbs about the edges of banana plantations in Caribbean Central America? Do they picture the chestnut-sided warblers, that in summer nested in old fields with light bushy growth, as foraging now in the lofty rain-forest of Costa Rica and Panamá—that "jungle" that holds so many terrors for people who

have never experienced its peace? Do they imagine the russet-backed thrushes, that nested in northern coniferous woods, as following the army ants in the tropical forests, in company with ant-birds, woodhewers, manakins and other feathered creatures? Many of these northern birds pass more than half the year in their tropical homes. Their welfare depends upon what happens to them in the South no less than upon what befalls them in the North.

If these migratory birds could talk of conservation, they would take a less limited view than that of many human conservationists whose outlook and experience is all too local. True cosmopolites, these feathered creatures would insist that bird protection must be inter-



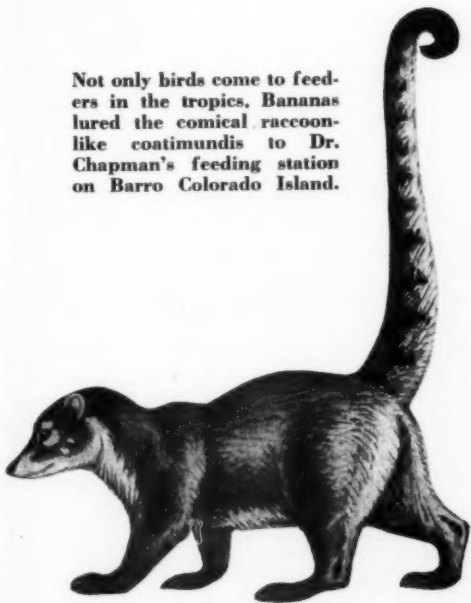
"I continue to wonder why the lovely and abundant blue-rumped green tanager passes my board without stopping to eat."

national, if it is to be effective. The songbirds might ask why, although fairly well protected from human persecution in the countries where they nest, they must, in the tropics, run the gantlet of firearms, slingshots in the hands of boys small and big, and traps set for them. They might ask with what right bright-plumaged, sweet-voiced rose-breasted

grosbeaks, Baltimore orioles and painted buntings, are imprisoned in cruelly narrow cages and never permitted to return to the land of their birth. They might demand to know what had become of International Law when travelers could be seized and held indefinitely in foreign countries with no possibility of redress.

Treaties have been made to protect the migratory birds in some of the republics south of the Rio Grande. More might be negotiated, but in the present state of education and law enforcement in many of these countries such treaties would be of little value. Of what use to place the names of migratory birds on a protected list in a country—as in most tropical lands—where the great majority of the birds, including some of the most beautiful, have no local name?

Not only birds come to feeders in the tropics. Bananas lured the comical raccoon-like *coitumundis* to Dr. Chapman's feeding station on Barro Colorado Island.



This lamentable situation is in part a result of lack of books. With the exception of Sturgis's excellent, but insufficiently illustrated "Field-book of the Birds of the Panamá Canal Zone" (in English) there is no adequate guide—other than ponderous volumes of use only to the advanced ornithologist—to the birds of any country between the United States and Chile. Since these South and Central American countries are poor and divided, and have few competent naturalists, the deficiency is not likely to be remedied without outside help. The first step in the protection of North American birds in their winter homes to the south must be the preparation of books which will help the residents of these tropical lands to distinguish the migratory as well as the resident birds and to recognize their value, esthetic and economic. We North Americans, with our interest in birds and great resources and scientific training, must make ourselves responsible for producing these books.

The truth of this thesis, that the first step in the conservation of wild creatures is the popularization of interest in them, should be obvious to any member of an Audubon Society who reflects a moment on the name of his organization. John James Audubon, by the strength and fidelity of his paintings, by the freshness and vivacity of his writing, and in large measure, too, by his picturesque character and romantic history, probably did more than any other single man to arouse popular interest in the birds of eastern North America. This widespread interest was a prerequisite to any effective movement of conservation, hence it is fitting that the organization preeminently dedicated to conservation in North America should bear Audubon's name. The countries of tropical America still lack their Audubon. When he arrives he must pave the way for any sound and truly indigenous effort toward conservation within their borders.



MYSTERY MAMMAL— The Florida Manatee

By Alexander Sprunt, Jr.

THE long, narrow-beamed craft was rushing across the wide expanse of Whitewater Bay in southern Florida. I leaned against the cabin bulkhead, glancing alternately from the sun-flecked waters ahead to my warden companion who, bending far forward from under the canopy, was steering the speeding patrol boat by means of his bare, almost prehensile toes! Between marvelling at the scenery and the unique abilities of the helmsman, I was lost in a reverie which was suddenly interrupted in a startling manner.

The launch reared upward without warning, as if it were about to take to the air, then rolling violently to starboard, almost dipped its gunwales under, shifting as quickly to port. Clinging to a stanchion, I stared aft at the boiling wake where I had a brief glimpse of what appeared to be a black log of shiny India rubber. The warden, after throwing an unconcerned glance astern, resumed his simian-like steering posture, as if nothing had happened.

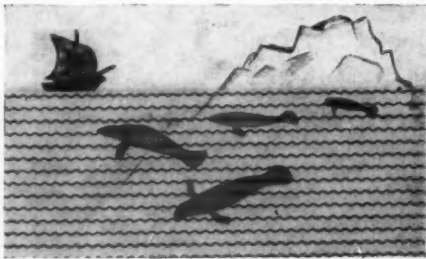
"What . . . ?" I began breathlessly.

"Them blasted sea-cows," he remarked mildly, "I'll break a wheel on one o' them yet."

Some years ago that was my introduction to the Florida manatee, a queer, ungainly, almost prehistoric aquatic animal, which may reach a length of 15 feet, weigh up to 2,000 pounds.

Outwardly, there is little to draw one to this homely, inoffensive creature. Perhaps its very unattractiveness is compelling. It has no grace of form; no attribute which could be termed handsome; no color except unrelieved black. Yet there is much of interest about it, for this is the creature responsible for the legend of the mermaid. It exists today as a rare and little known form of mammalian life in the United States.

The manatee is a representative of a small group. Living in the American tropics, it has but one relative in all the rest of the world, the dugong, of similar appearance and habits, which frequents the Indian Ocean from Africa to Australia. The dugong possesses tusks and a double-lobed tail which the manatee lacks. The far northern, Stellar sea cow lived in the Arctic where it fed on marine vegetation and was perfectly at home amid the frigid domain of the polar bear and sea-otter. This creature was discovered by Vitus Bering on his last Arctic expedition in November, 1741. To Bering's ship-



wrecked men it was life-giving food, but when rescued they told about it, and Russian hunters, acting on the information, wiped it out in the next quarter-century.

Few Florida visitors, or residents for that matter, know the manatee from field observation. One might well spend

a score of winters in Florida and never even hear of it, much less see it. Even many of those who include wildlife and natural history among the "things to see" in that remarkable state, have never glimpsed a manatee. I have seen a great deal of the Everglades and Keys since 1935, but after having explored them by boat, by car, afoot, and in airplanes on scores of occasions, I can number observations of this curious animal on the fingers of one hand. At night, lying in a boat on Broad, Lostman's, or Shark Rivers of the southwest coast, I have heard its loud splashings and great, blowing snorts hardly more than a few yards distant. But hearing is not seeing!

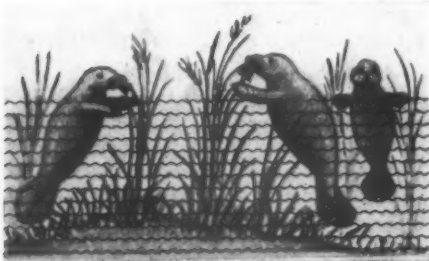
The manatee is usually shy and timid, although it is not always so. That it avoids close contact with man is justified from the manatee's point of view, because man has chosen to persecute it relentlessly. Years ago manatees were far more numerous than they are now and might be seen as far north along the east coast of Florida as Daytona and sometimes even farther. The Palm Beach area supported a considerable population, as did many of the waterways of both coasts. Today it is confined to the southern tip of Florida, that great and still mysterious mangrove wilderness of the Ten Thousand Islands and the vast, liquid labyrinth of Whitewater Bay and the Cape Sable district. Manatees were shot by thoughtless hunters, killed for food by the natives, and thus reduced to a fraction of their former numbers. There is about as much sport in killing a manatee as there is in slaughtering a calf in a barnyard, but some of them are still sought by hunters who wish to add an unusual trophy to their bag.

A creature of the tropics, the manatee is not adapted to chilly weather. Frost is usually fatal to it, and as a result it is found only where frosts are relatively unknown. Even extreme south Florida sometimes experiences a freeze and a resulting loss of manatees. During these cold spells the cold air that the manatee

breathes into its lungs may be fatal to it rather than the lowered temperature of the water in which it lives. Wandering specimens swim a considerable distance up the Atlantic coast, probably following the warm Gulf Stream. They have been seen along the Georgia coast; off Beaufort, South Carolina; Wilmington, North Carolina; and as far north as Virginia. In the summer of 1943 a pair was observed frequently along a part of the waterfront of St. Augustine, Florida, which is considerably north of its usual range.

Manatees also appear on the Gulf Coast of Texas now and then, but these are probably wanderers from Mexico or Yucatan, the most recent of which were reported in 1928 and 1937. In years past the animal was to be seen practically every summer in the lower Laguna Madre and the region about the mouth of the Rio Grande.

The big, shapeless manatee subsists entirely upon a vegetal diet. Turtle grass and other aquatic plants make up the bulk of its food in Florida. In feeding, the manatee holds its body almost vertical, suspending itself upright in the



water while it sweeps food inward to its mouth by the flipper-like forearms. The head and shoulders appear well above the surface, and it was this position, and the resemblance to a human being in the water which may have given rise to the mermaid legend. The manatee often feeds at night, though whether this is a natural habit or one developed from persecution is not clear.

As might be supposed, not many manatees are in captivity. Now and then, however, one is exhibited. The collections of sea animals at the famous Marine Studios, between St. Augustine and Daytona Beach, have contained manatees



at times, and for many years there was one in the Miami Aquarium, housed in an old sailing ship on the waterfront of that city where thousands of people have seen this captive. Mr. H. H. Brimley of Raleigh, North Carolina, says of one captured near Wilmington, that it was transported to a pond and ate all of the eel-grass and pondweeds growing therein. It was then fed on a diet of collards, carrots, and bread and showed a particular preference for bananas.

The manatee usually bears a single calf each season. The young are sometimes seen together in the same general locality, indicating a sort of calving ground. The shallow water of the region probably protects the calves from being attacked by sharks or barracudas, which may be their principal natural enemies.

After the breeding season several families may unite and form a herd, which appears to be a confirmed habit. Nothing is known concerning manatee courtship or whether there is any pronounced antagonism among the bulls in the mating. The manatee is certainly not equipped as a fighter, and it is hard to imagine how two bulls would carry on any kind of conflict. The only noise that the manatee makes is an explosive snort, but it makes up in volume what it lacks in variety!

Continued on Page 337

Birds in

JAVA

A Member of a United Nations Committee to Indonesia tells of the birdlife he saw there.

Drawing of black-capped bulbul by the author

By Charlton Ogburn, Jr.

FOR a bird-enthusiast there is no excitement quite like that of visiting a new part of the world. A trip to a tropical country, especially, is an adventure to be compared only with one's first spring migration. There is, every day, the same thrill of anticipation and discovery, with the difference that this time the experience is not quite so bewildering. Once familiar with the birdlife of your own country, you have a general idea of how to proceed in the exploration of the birdlife of another, and you have a basis of comparison. Inevitably you see the new birds in terms of the old and find some recognizable qualities in the most exotic species.

Thanks to the Army, I had been introduced to the birds of India before I went to Java in October, 1947, as a member of the United States delegation on a United Nations mission. Accordingly I had some notion of what to expect. In particular, I was not so astounded as I should otherwise have been to find that, in the harbor of Batavia, the birds that should be gulls are in fact kites. In India it is the common pariah kite that escorts your ship to the wharfside. This species, which to our eyes suggests a large young marsh harrier, has probably better adapted itself to the ways of man than



"Every major environment has a bird species that is eminently successful. In Java, certainly in and around Batavia, this species is the black-capped bulbul."

any other member of the hawk tribe. At our training camp in India several regularly drifted about over the mess-lines, taking bread tossed to them in mid-air. They abound in even the largest cities, and I have seen one swoop upon an unsuspecting Hindu in the heart of Delhi and snatch his lunch from his hand.

In Java, the kite is the more aloof Brahmany kite, a handsome bird snow-white on head and breast and elsewhere a bright cinnamon. These kites, like *Buteos* in build, but agile and graceful, perch on the telephone poles along the breakwater and circle the ship, dropping to the water to snatch a morsel from the surface. They also range inland, replacing the vultures in which Indonesia, singularly enough for a tropical country, is totally lacking. Many times I watched the Brahmany kites, wheeling with the superior air of eagles over the after guns of the *U.S.S. Renville* while I listened to the arguments set forth by the delegates of the Netherlands and of the Republic of Indonesia who convened day after day on her boat

deck in an effort to settle their differences. Hence I shall always have a special feeling for *Haliastur indus*, associated with a sense of reassurance. To the kites there would probably be as little change that mattered in the next few hundred years as in the past few hundred since their ancestors had wheeled over the war proas of a *raja* laut.

In a strange country it is less confusing to begin with the city birds. In Batavia, the common sparrow of the streets looks familiar at first glance but at second proves to be the European tree sparrow (*Passer monatus*), a bird whose range comprises Europe, Asia, and northern Africa and, rather unexpectedly, St. Louis, Missouri where it was introduced 80 years ago. Similar in habits and appearance to the house sparrow, the European tree sparrow differs in that both male and female have the black throat and the male has a chestnut crown in place of the gray crown that gives the male house sparrow the unwholesome appearance of a bald-headed, black-bearded gnome. The European tree

"In the last hour of the day, when . . . the water buffaloes were being brought home . . . it was easier to believe that the road led to paradise." Photograph courtesy Netherlands Information Bureau.





Young jungle mynah, a bird of the dense forest, photographed by the author.

sparrow is a daintier and more attractive bird and, as one would deduce, is unable to meet the competition of its coarser cousin where the ranges of the two coincide and is there confined to the countryside.

With the starlings the difference is greater. Southern Asia is the land of starlings and of the closely allied mynahs (genus *Acridotheres*). The dark brown common mynah (*A. tristis*) is perhaps the bird of India, and is now, owing to its introduction there, found as far east as Hawaii (where, in fact, apart from the house sparrow, it was the only bird I saw during a half-day stopover in Honolulu). Its nearest relative in Java is the jungle mynah (*A. fuscus*) which, as the name indicates, is not an urban bird. The pied starling, like the common mynah, is an adjunct of human habitations throughout eastern India and Java. Black and white in color, *Sturnus contra* has bare yellow facial patches, also like the common mynah. It is accompanied outside the towns in Java by *S. melanopterus*, the white starling, which is white all but on the wings. The group as a whole has the starling ubiquity, the true starling figure, the long, sharp beak, the starling waddle, the straight rapid flight, and all give the

impression of singing with a fishbone lodged in the throat. All share the quality that gives our starling the apt name of *S. vulgaris*. To me there is a suggestion of evil about the starlings. Perhaps it is only the conjunction of their ungainly gait, of the forehead that slopes straight back from the beak, of the harsh, guttural cries, too deep for the size of the bird, and the narrow intentness of attitude, but it dispels what should be the beauty of the two Javanese species.

In its vitality, equatorial life flows everywhere, and cities in the tropics hardly create a break in the birdlife. Batavia is no exception. The only city I know in the temperate zone of which this can be said is Washington, D. C., which has justifiably been termed a city in the woods. At night in Batavia, I have been electrified by the owls that flew over the main streets, their forms dimly illuminated from below, their protracted, strangled screeches sounding loud above the noisiest traffic. After returning from Java, I twice experienced the same phenomenon on the outskirts of Washington and have concluded that in both places it was the barn owl, *Tyto alba*, whose distribution is almost world-wide.



Outside the towns in Java, one finds the almost completely white starling, with a touch of black on its wings. Photograph by the author.

Among the birds that take over Batavia by day are the swifts that nest in hundreds under the bridges spanning the city's canals. These are cave swiftlets of the genus *Collocalia*, related to the swift that builds edible nests, a bird that is found in other parts of Indonesia. On the wing the cave swiftlets look like small, gray-bellied chimney swifts, with the same twinkling flight, and it is astonishing to find that one can keep up with them on a bicycle. A huge flock as thick as gnats and, as far as I could see, just as aimless, swirled every morning, for the ten months I was in Batavia, around the crown of one of the great shade trees in the courtyard of the Hotel des Indes.

They puzzled me at every breakfast, just as I was puzzled by the strictly local occurrence of four or five glossy starlings of the genus *Aplonis*—very handsome in their jet plumage with its green sheen and with their ruby eyes—that inhabited an iron lamp-post by the dining terrace and were to be found nowhere else in the entire Batavia area.

Every major environment has a species that is eminently successful. In Java, certainly in and around Batavia, this species is the black-capped bulbul. The bulbuls of the family *Pycnonotidae* are medium-sized passerine birds somewhat resembling American flycatchers in having short necks, flat bills slightly hooked at the tip, and longish tails. Generally they are not brightly colored. Despite the romantic name of bulbul, they are distinctly "modern" birds in their adaptability and appearance, and would not be out of place in any country's avifauna. One of 20 species of the genus *Pycnonotus* in Indonesia, the black-capped bulbul (*P. aurigaster*) has a black crown and face, dark back and wings, a white rump and black tail tipped with white and is white below with golden yellow undertail-coverts. Its size and general pattern is that of a kingbird, which it also resembles in its restless vitality, raucous notes, and aggressiveness. It seems to have adapted itself to its environment so well that it is not only abundant, but has things pretty much on its own terms. Black-caps are usually found in noisy, family-sized groups (I suspect they are unwilling to be alone for fear of missing something). Like jays, they always have business afoot. When not sallying forth on some sudden project, the males are generally singing, the broken song being voluble and melodious, or disporting themselves, high above the treetops in the incongruous style of tree swallows, gliding on outstretched, triangular wings, or even soaring.

The outpourings of the bulbuls, the not unmusical efforts of the pied star-

lings, and the hollow cooing of doves are the sounds of Batavia—to which must be added, for the sake of local color, the resonant tap-tapping of street vendors beating sticks of wood together and the blaring of motor car horns. In the rural kampongs, it is the custom for each family to keep a dove in a small cage which is raised and lowered like a flag on a bamboo pole, the dove being reputed to bring blessings down upon the house. The tigrine dove, which in silhouette could pass for a mourning dove, and the diminutive zebra dove, only eight inches in length including its long tail, are the favored varieties. Both are mottled brown and gray. These are the common doves of the city's shade trees and are the doves that leap up with an erratic flight and a clapping of wings every few hundred yards when you travel down a country road.

Whenever I could finish the day's work in time, I used to bicycle out the road that led to Tangerang—a town that acquired prominence two years ago as the site of a reported massacre of 500



In the rural kampongs, where it is believed that doves bring blessings upon the home, each family keeps a dove in a small cage which is raised and lowered like a flag on a bamboo pole. Photograph courtesy K.P.M. Lines.

The natives of Java believe that the diminutive zebra dove (below) and the tigrine dove, are birds of good will. Photograph by the author.



Chinese by Indonesians—and to the demarcation line between the Dutch and Republican forces. In the last hour of the day, when the townspeople and villagers were bathing in canals and rivers and water buffaloes were being brought home from the wallows, it was easier to believe that the road led to paradise, such were its avian wonders and the splendor of its incomparable sunsets.

Aside from an occasional military vehicle or groaning bus, traffic was light. This made bird-exploration, by bicycle, ideal. You can move as quietly on a bicycle as on foot, cover a great deal more ground and get into action with binoculars almost as quickly.

On one side of the road ran a river; on the other, ricefields alternated with kampongs shaded by fruit trees and palms. From the air, the light green of the ricefields, contrasted with the dark green of the trees, made the lowlands of Java appear a patchwork of two shades. For the herons, these lowlands are high-

ly attractive. In the hour before the timpani of frogs announced that night had come, the egrets would stream off the fields to their roosts. The gray heron of the old world, which to me is indistinguishable from our American great blue, is common in the low country. The Malay pond heron is still commoner and has the solitary habits, stocky build and galloping flight of our little green. On the wing it appears to be mostly white, but is transformed into a black and brown bird upon alighting.

The predominant herons, however, are the egrets, the lesser (a smaller version of the American egret) snowy egrets, and cattle egrets being the most abundant. The cattle egrets are found as tick-eaters in a symbiotic relationship with herds of the local, high-humped cows and of obese water buffaloes, which nature, through the process of convergent evolution possibly has in mind transforming into hippopotamuses. In the heart of one town I visited in East Java—Djember—the shade trees in the central square supported a colony of egrets which on their stilt-legs were going awkwardly about the business of nesting without regard to the comings and goings of armored cars and Bren-carriers in the army camp beneath them. Or perhaps the thought should be expressed the other way around.

On the Tangerang road, where early-flying bats mingled with the clouds of swifts, the cave swiftlets of the city were joined by faster-flying house swifts with white rumps. With luck one might see a tree swift, which belongs to a family of its own (the *Hemiprocnidae*). The tree swift has the perching habit, the coloration, and deeply forked tail of a swallow, but its exceptionally long wings are of the true scimitar-type of the swifts,

Giant trees, lush tropical plants, and the varied birdlife of the Buitenzorg Botanical Gardens remind one of what the vanished native forest was like. Photograph courtesy Netherlands Information Bureau.



The outpourings of the bulbuls and the hollow cooing of doves are common sounds in Batavia. Goiavier bulbul photographed by the author.

while its clean, lunging flight combines the finest features of both families.

Among the other swallow-like birds were the white-breasted wood-swallows, (of the unique little family of *Artamidae*), which have swallow-bodies and the heads of large-billed tanagers. They are predominantly slaty-black color, and have the habit of perching upright like porcelain ornaments on the dead tops of trees when they are not coursing over the landscape in the manner of purple martins. Where the road passed cattle ranges, there were always chestnut-headed bee-eaters on the telephone wires. To visualize this species you must imagine a foot-long swallow, mainly metallic green and blue, with a long, thin beak, a long tail, and the purposeful lines when volplaning—which is characteristic of the bee-eater—of a fighter plane. The flycatching bee-eaters raced

The aboriginal forest has disappeared from the lowlands of Java, the most densely-populated country in the world. Photograph courtesy K.P.M. Lines.

with one another over the fields in two's and three's, banking steeply on the turns and whisking over the treetops. Like most birds that are adept on the wing, they seemed to exult in their flying skill, and even to show off.

To be concluded in the next issue in which the author will tell about white kites, peregrines and eagle owls, and of an enormous flight of fruit bats.





Children marvel at the structure of a robin's nest.

*All photographs courtesy of
Palisades Interstate Park—Boland*

Only 30 miles from New York City, children accustomed to crowded city streets, discover a new world!

Out of the Classroom into the Woods

By Ruth Louise Hine

"IS IT alive? Does it bite? Is it poisonous?" Eager, excited children fill the museum with their cries—squeals of anticipation and dismay as a snake is taken out of the cage for a better look; cries of amusement while the squirrel turns "tumblesaults"; screams as the skunk strikes a threatening pose, tail up-lifted . . . a reassuring word . . . silence but for a moment, until something else occupies them.

Only 30 miles outside of New York City, a 48,000-acre classroom offers nature lore to children who come there eagerly from four states. Daily, groups of children and their teachers arrive from

100 miles away in New York State, Connecticut, Massachusetts and New Jersey. Here, in Palisades Interstate Park, along the Hudson River, fern and leaf-carpeted nature trails and flower-scented air replace schoolroom desks and the odor of ink and blackboard chalk.

Under the capable leadership of the Park Naturalist, John Orth, Trailside Museum and five regional museums are being maintained in the Bear Mountain-Harriman section of Palisades Interstate Park. This region is a magnificent expanse of wooded mountains, valleys, fields, swamps, and lakes, studded with camps operated by organizations from New York and New Jersey. There are 73 camps, usually with 6,000 camping oc-



"Is it alive? Does it bite? Is it poisonous?" A museum director acquaints campers with turtles found in or near the park.

cupants at one time. The fascination of the outdoor world and the rules of conservation might pass unnoticed here, by children and adults, if it were not for the park museums.

Each regional museum, supervised by two people trained in natural history, serves as a center for the nature work of its area. Lakes Kanawaukee, Tiorati, and Stahahe Regional Museums attract not only campers but many park visitors, because of their nearness to picnic areas and concessions. The Twin Lakes and Cohasset Museums are set back farther in the woods, and are accessible only to the camps and ambitious hikers.

It was my good fortune to work at

Cohasset Museum during one summer where I had a part in helping to introduce "city kids" to the excitement of the outdoors.

The two Cohasset Lakes, connected by a short tumbling brook, are surrounded by almost primitive woods reaching down to the water's edge, which are frequented by campers from the nine camps of that area. A little way from the lakes, slightly apart from the camps, stands Cohasset Museum, a one-room stone building well-equipped with materials for exhibits, and cages and aquaria to house animals and plants of the region. A number of animals are loaned to the regional museums by

Trailside Museum for the summer, but most of the exhibit material is collected nearby. Specimens from mushrooms to large-mouthed bass are proudly presented to the museum by campers.

During the day the museum is crowded with children from the surrounding camps who come at scheduled times to look at the new raccoon which one camp cook trapped in a garbage can, or perhaps to unload a pocketful of little red-spotted newts (*Triturus*), their most common and appealing wood's acquaintance. Boys and girls of many races and nationalities, accustomed to crowded city streets, see a multitude of new living things here—a part of their world they have never known before. The gray squirrel, burying nuts in the corner of the cage, the raccoon looking up over the edge of his tipped-over water pail, the motionless form of the bat, spending half of his life hanging upside down

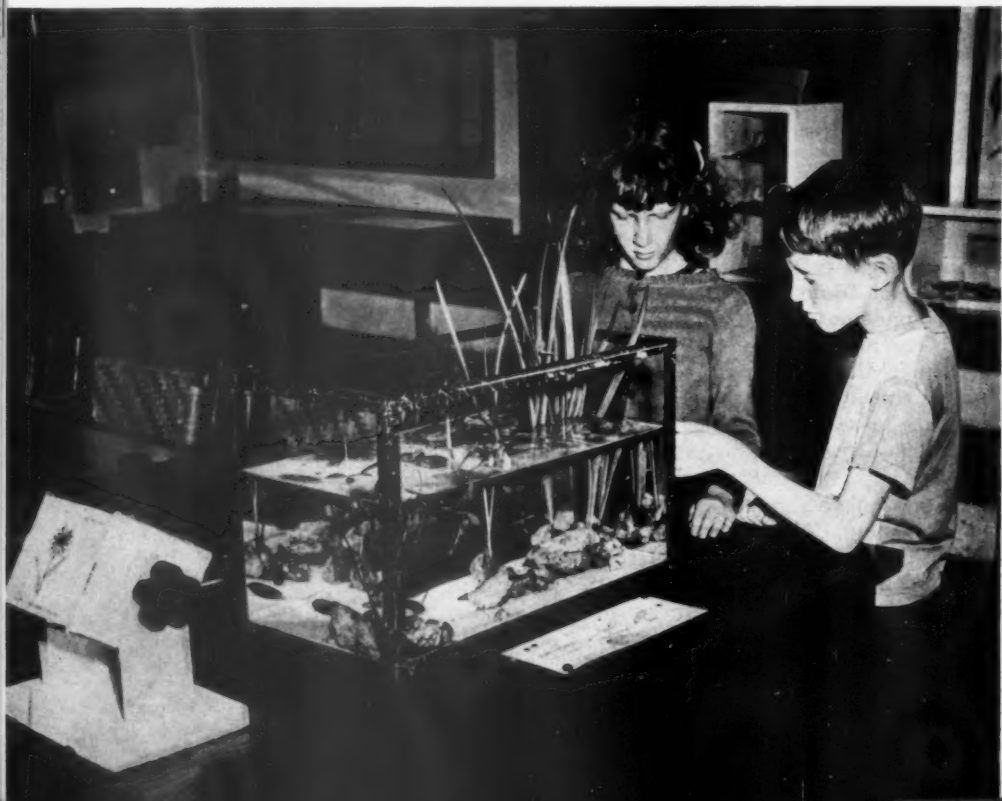
from the top of the cage, prove to these children that animals as well as people have interesting and amusing habits.

"O-o-oh! Look at the baby lions!" someone cries on seeing a pair of hamsters. (These, by the way, are the only menageric specimens not native to this country.) The hamsters, little Asiatic relatives of the mouse, provide much amusement for the children for the little guinea-pig-like creatures will sit in the palm of their hands and stuff large chunks of carrot into their bulging cheek pockets.

The skunk, "Shrinking Violet," receives her share of attention and comments. Children often plead, "Please make it smell, we've never smelled one!" But, of course, Shrinking Violet had been, to use the words of one youngster, "de-skunked."

The snake corner arouses more hulla-balloo than any other part of the mu-

Many plants and animals in the park might be unnoticed, were it not for the park museums.





The boy who has known the loveliness of young skunks, no longer fears or despises them.

A young red fox is a powerful attraction to campers.



Each of the five main camping areas in the park has its regional museum.



seum. Although more than one child thinks the snakes are dummies, they are very much alive. The high point of any tour is the removal of one of these harmless lithe reptiles from its cage. The circle of excited youngsters closes in tightly—only to very suddenly retreat. When reassured that the snake is not poisonous, almost all will touch the cool smooth skin and feel the light flick of the tongue. A few will hold it, awed by the fact they are actually handling a snake! Most people are just plain scared of anything that crawls. A great many myths about snakes, and other animals too, are banished from the minds of the children and adults during the summer.

Under the heading of child logic belongs this conversation between the museum director and one camper:

"What are those things in the bottle?"

"Snake eggs."

"We don't eat them — ?"

"No."

"Then what do they have them for?"

Perhaps the greatest aim of each museum is to help children and adults alike discover some of the fascinating life around them. The camp lake is, at first, a place in which they escape the summer heat or pass swimming tests. Soon, however, they begin to see that they share it with myriads of plants and animals. The bullfrog, which they examine in the museum, becomes a distinct personality, and instead of being annoyed at the chorus of "jug-a-rums" at night, they learn to associate it with the big green pop-eyed animal sitting at the edge of their boat dock. The little black tadpoles wriggling in the soft muck along the shore are no longer caught and allowed to die, for they have seen them gradually change into miniature spring peepers which cling to the plants out of the water. They know that if they are quick enough to see the painted turtle basking on a rock, they may be rewarded with a brilliant splash of red and yellow color on its underside.

The park is rich in Indian lore; almost everywhere you walk you may pick up a piece of chipped flint, spanning in that one small stone the years between our camps and concessions and the brown warrior's bearskins and war dances. Around a tray of some of these Indian relics found around the park, an Indian exhibit is arranged. Children accustomed to modern conveniences learn that there were no super-markets or five-and-ten-cent stores for the Indians. They had to live off the land. A display of natural objects demonstrates how the Indians made their needles and thread from deer ribs and dogbane bark, their pink lemonade from sumac berries, and their brilliant dyes from flowers, leaves and even the bark of trees.

Energetic youngsters become enthusiastic collectors — sometimes returning from their expeditions with 20 frogs,

NATURE IN T



Photograph by Allan D. Cruickshank

Gawky pelican, among largest birds, weighs about 20 pounds, has a 7-foot wingspan. Hunting small fish, bird can dive 30 feet deep.—Parade, June 19, 1949.

several dozen red efts, or a bag full of mushrooms. One group of little girls proved to be ardent fishermen. Their tactics will not be endorsed by skilled anglers, but nevertheless yielded 17 sunfish in one morning. The youngsters lower a pail in the water and drop some bread over it. When an unsuspecting fish investigates, up comes the bucket—with the fish. (A method evidently perfected by children; the museum directors worked for half an hour and caught only two fish!)

In the evening the museum directors visit campers and show colored slides and movies, or lead them in nature games. The children may take an imaginary hike through the park and see a deer browsing a mountain maple twig, a vireo feeding the cavernous mouths stretching up from her nest, or a beaver busily going about his affairs.

Or they may release some excess energy in a nature scavenger hunt. The association of happiness and sport with the outdoors is perhaps as important for these children as learning facts.

The influence of the museums in the park is far-reaching. The Cohasset Museum, alone, is host to about 5,000 people each summer. The number of campers reached by the museum's influence, or the number of talks given cannot wholly determine the success of a museum educational program. The number of children that overcome their fear of snakes, that replace superstition with fact, that learn their first lesson in conservation cannot be recorded. Yet these are some of the intangible values so apt to leave their mark in impressionable young minds. Their world is growing larger—they have found byways of adventure outside of New York City.

N T H E N E W S

Word from the Bird

Pete Pelican spikes a false rumor

The gleam in Pete Pelican's gimlet eye warns that he's about to give the photographer a piece of his mind. According to naturalists, anyone who knew Pelicanus probably would find him doing it like this:

"Look, friend, I don't mind having my picture taken, but I hope you're not going to revive that ancient wheeze about my beak holding more than my belican. It's uncouth. Besides, it gives people the impression that I eat too much. The truth is, fishermen generally like me because I eat only non-commercial fish. The way I can tell a non-commercial fish from a commercial fish is strictly my own secret. See you down in the swamps."

—Parade, June 19, 1949.

Japanese Beetle Plague Beaten By 1949 Weather and Starlings

Special to the Herald Tribune

BEAR MOUNTAIN, N. Y., Aug. 7.—Japanese beetles will not join drought and heat to plague gardens in New York area this summer, according to a survey completed today by Dr. C. H. Curran, curator of insects and spiders at the American Museum of Natural History.

In reporting these glad tidings to suburbanites and farmers, Dr. Curran credited nature with wholesale decimation of the leaf-eating bronze pests—a feat which tons of DDT and acres of beetle traps have annually failed to accomplish.

Dr. Curran said the main assault against the swarming beetles—known in scientific circles as *Popillia japonica*—has been waged by the lowly starling, a bird that generally finds few friends among farmers or householders. Just as hungry for grubs as beetles are for herbage, the starlings found conditions for eating beetle larvae ideal last spring, and made the most of them, Dr. Curran said.

Aiding the starlings, Dr. Curran said, was last winter's unseasonable weather, which stayed warm while it should have been cold and turned cold just as spring approached. When the cold snap came, there was no snow on the ground, so the frost sunk deep, killing many beetle larvae as they nestled some eleven inches below the grass roots. Those that did wander to the snowless surface found starlings waiting for them, Dr. Curran said.

Through the work of the weather and the starlings—descendants of birds imported from Europe especially for their bug-eating abilities—the beetle population has been so reduced, Dr. Curran said, that it will be several years before they can reappear in strength.

The first *Popillia* found in the United States showed up in 1916 in a nursery near Philadelphia. Four years later, they had spread to the New York area. Despite quarantine efforts by the United

Continued on Page 317

"It is in . . . rich bottom lands that the sycamore takes happy root." Plane tree, buttonwood, or American sycamore, *Platanus occidentalis*. Photographs courtesy New York Botanical Gardens.



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The famed author of "Singing in the Wilderness," "A Prairie Grove," and other books, brings you the story of America's largest deciduous tree.

By Donald Culross Peattie

THE sycamore is a tree out of our Homeric age. By its beautiful bright smooth bark, it is known as far off as the color can be described; it shines through the tops of the forest even in the depth of summer when the leafy crowns are heaviest. In winter against a stormy sky it looks wonderfully living, amidst all the appearances of lifelessness in other deciduous trees. Yet seen as a snag in the Mississippi River, with the bleaching timbers of some wreck piled on it, the white bark looks deader than any other dead tree can look, with the gleam to it of picked bones.



"... The trunk looks patterned with sunshine."

T H E S Y C A M O R E

Copyright 1949 by Donald Culross Peattie

In the woods, the trunk looks patterned with sunshine. The cause of this is that, constantly, as the swift growth of the wood goes on, the bark keeps sloughing off in thin plates and irregular patches. On close inspection, one usually sees three different colors of bark; the outer light gray and the inner variously pale tan, greenish, or chalky white, but the impression at a slight distance is that of an exquisitely mottled tree, dappled with green shade and pale sunlight.

It is on the borders of rivers and lakes, and in rich bottom lands, that the sycamore takes happy root. With the black willow it marches beside the Father of Waters; along the Ohio River it was the outstanding river bank tree of the primeval forest, unsurpassed in picturesque grandeur and in the cooling depth and mighty spread of its shade. Wide groves

of it covered the rich bottom lands, as far as the eye could see up and down the stream, while upon some bend or promontory of the river, or on some island in its flood, stood forth here and there a sycamore so gigantic in its girth that the marveling traveler wrote of it half doubting he would be believed. For the sycamore is, in girth of trunk, the largest deciduous hardwood of North America, and in those early days there were indeed giants in the earth.

To the pioneer the sight of it was welcome, since in general its presence and enormous growth were correctly taken to denote rich soil. However, from its predilection for low grounds, where malaria also was harbored, it often worried the early prospector for lands; well might it be a warning, he felt, of ague, chills and fever. He

dreaded, too, its proximity because of the down that grows on the underside of the leaves; to his mind it was this, producing a constant though imperceptible irritation of the lungs, that brought consumption to anyone rash enough to live beneath it. Though we smile at this, we may find some reason in this distrust of the abundant deciduous hairs upon the leaves, for being very light and sharp, they float long in the air and undoubtedly some people are allergic to them.

But in a sturdier day hay fever was the least of a man's problems, and the sycamore answered many practical ones. Though not strong in the position of a beam or column, and with little resistance to decay, its wood is hard, fairly tough and almost impossible to split. So the pioneer cut trunks of great dimension into cross-sections, which he then bored through the center, to make primitive solid wheels for his ox cart. If the trunk were hollow, as it often was, he sawed it in lengths of three to four feet, nailed a bottom in it, and so had a stout hogshead for grain. As time went on, and American civilization evolved into the sophistication of barber poles and wooden washing machines and lard pails, sycamore was a favorite for such things. The very broad panels that could be sawed out of sycamore recommended it for use in Pullman cars—in the days of wooden Pullmans. Stereoscopes once used immense amounts of sycamore wood, in the days when Americans used immense amounts of stereoscopes! Slats of the ubiquitous Saratoga trunks were commonly of sycamore, and formerly piano and organ cases and phonograph boxes employed this light-hued wood. Today the place you are most likely to see it is at the butcher's, since it can be endlessly hacked without splitting.

So, on the block, ends a noble once undisputed in the virgin Ohio valley forests! It had great fame, and it had great friends. André Michaux wrote of a sycamore growing on a little island in

the Ohio "the circumference of which, five feet from the surface of the earth . . . was forty feet four inches, which makes about thirteen feet in diameter . . . Twenty years prior to my travels, George Washington had measured this same tree, and had found it nearly of the same dimensions." And Michaux's own son, François, coming after him in 1802, found an Ohio sycamore which beat his father's record, "the trunk of which was swelled to an amazing size; we measured it four feet beyond the surface of the soil, and found it forty-seven feet in circumference. By its external appearance no one could tell that the tree was hollow; however, I assured myself it was by striking it in several places with a billet." Most sycamores over 100 years old are hollow at

"In winter, against a stormy sky, the sycamore looks wonderfully living, amidst all the appearance of lifelessness in other deciduous trees . . ."



the heart, which of course does not prevent the tree from continuing to expand through the years. So it was that pioneers often stabled a horse, cow, or pig in a hollow sycamore, and sometimes a whole family took shelter in such an hospitable giant, until the log cabin could be raised.

Long before there were any chimneys to send up a twirl of smoke in lonely clearings, these hollow sycamores were home to the chimney swallow. On an evening of July, not far from Louisville, Kentucky, there came to such a tree John James Audubon. "The sun was going down behind the Silver Hills," he remembers, "the evening was beautiful; thousands of swallows were flying closely above me, and three or four at a time were pitching into the hole, like bees hurrying into their hive. I remained, my head leaning on the tree, listening to the roaring noise made within by the birds as they settled and arranged themselves, until it was quite dark, when I left. . . ."

"Next morning I rose early enough to reach the place long before the least appearance of daylight, and placed my head against the tree. All was silent within. I remained in that posture probably 20 minutes, when suddenly I thought the great tree was giving way, and coming down upon me. Instinctively I sprang from it, but when I looked up to it again, what was my astonishment to see it standing as firm as ever. The swallows were now pouring

out in a black continued stream. I ran back to my post, and listened in amazement to the noise within, which I could compare to nothing else than the sound of a large wheel revolving under a powerful stream. It was yet dusky, so that I could hardly see the hour on my watch, but I estimated the time which they took in getting out at more than 30 minutes. After their departure, no noise was heard within, and they dispersed in every direction with the quickness of thought. . . ."

Not only swallows (swifts, more exactly) loved the sycamore, but a now-vanished bird of the primeval woods. The men of Long's great expedition to the Rockies noted, as they passed through, that "the fruit of the sycamore is the favorite food of the paroquet, and large flocks of these gaily-plumaged birds constantly enliven the gloomy forests of Ohio." The Carolina paroquet, only member of the parrot family native in the United States, is extinct now, and so are the gigantic sycamores of the virgin forest. Long ago the great trees were cut down recklessly, to clear the land, to feed the sawmill; the merest shadows of their great dimensions are all that we see today. But nothing of our past is wholly lost that still is treasured in the American saga.

The story of the sycamore tree is from Mr. Peattie's book, "*A Natural History of Trees*," to be published by Houghton Mifflin in the spring of 1950.

"How the American Sycamore Acquired Its Name," by H. W. Rickett

WE in the United States call one of our familiar trees the "sycamore" because our forefathers believed in miracles.

It is this way: The medieval church forbade classical drama but gradually substituted for it entertainments of a stronger Christian flavor and moral value. These were the "mysteries" and "miracle plays" which depicted the life and martyrdom of Jesus and of the Saints.

When Zacchaeus, in these miracle plays, had to climb into a tree to see Jesus over the crowd, he used a maple in default of a sycamore (which does not grow wild in Europe). This maple, *Acer pseudo-*

platanus, which resembles a sycamore in its dense foliage and grateful shade, is to this day called "sycamore" in England. The change in spelling is not to be wondered at, for spelling was not fixed in early England. Books were few and writers had to use their ingenuity. Chaucer spelled it "sygamour." Perhaps, as Miss Barrett and others have suggested, the Greek "sukaminos" has influenced the spelling. Possibly our own sycamore (*Platanus occidentalis*) was so named simply because of the resemblance of its maple-shaped leaves to those of the English sycamore.

From the *Journal of the New York Botanical Garden*
November 1947

Our Beautiful
Western Birds



CALIFORNIA JAY

Two big blue jays, one with a crest and one without, divide the West between them. The California jay lives among the oaks, while higher up in the pines on the mountains and along the humid part of the coast where evergreens dominate, the Steller's jay (opposite) takes over. California jay is not too appropriate a name for the noisy dashing bird shown here, because it is found locally in many of the other western states too, and a race even resides in Florida, where state pride dictates that it be called the Florida jay. "Oak jay" or "scrub jay" would be a good compromise.



Painted by
Roger Tory
Peterson

STELLER'S JAY

Like a woodland spirit Steller's jay flashes
among the tall yellow pines on the mountain slopes,
or through the cathedral aisles of the humid coastal forests.
These dark-crowned jays have a great deal of curiosity,
and if an owl is asleep in a thicket they are the first birds to discover it
and raise a clamor. If some large prowling animal treads
the shaded paths they let the other small creatures in the woodland
know about it. Where there was but one jay or two, there are soon a dozen,
calling "shook shook shook" at the tops of their lungs.

By Lynn Trimm

Illustrations by H. Wayne Trimm.



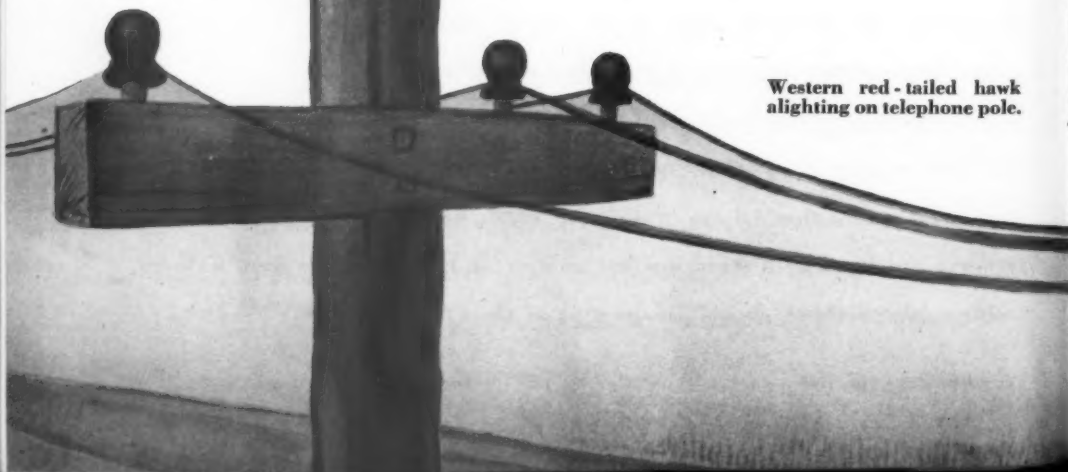
Bird-1

THE wife of every wildlife enthusiast from Mrs. Noah on has doubtless had to cope with a housing problem. Our task was to find space for myself, my husband, Wayne, and all the paraphernalia of the true bird enthusiast.

We began domesticity in a two-room apartment in Sioux Falls, South Dakota, where Wayne was completing his undergraduate work and I was teaching kindergarten. Roughly three-quarters of our apartment was occupied by my husband's ornithological library of books, periodicals and clipping files; his cameras, projector, screen and transparency cases; his drawing table, painting supplies, blocks of paper and portfolios; and finally, his collection of cherished bird skins.

There is something of the miser in every ornithologist. He is acquisitive

Western red-tailed hawk
alighting on telephone pole.



What one girl learned when she took a research ornithologist for a husband.

← H. Wayne Trimm and "Zeus."

The author on an upstate New York lake. →



Man's WIFE

and his treasures must always be near at hand. The attic? Too damp! The basement? Too musty! In the remaining quarter of our apartment we managed to sidle about with a minimum of conflict. The floor space in the bedroom was neatly covered with a two-by-four-foot rug. Our comparatively commodious living room took a four-by-seven-foot floor covering, though we had to be careful not to tangle feet when we relaxed simultaneously in the two armchairs. Our living quarters shrank further when Wayne began his research project on birds of prey, undertaken as a problem in natural sciences in his work at Augustana College.

To assemble data on the hawks of South Dakota, the game wardens sent him the killed or wounded hawks which they discovered on their rounds. These specimens Wayne identified, measured, photographed, painted and recorded as to food habits. The project began in warm weather and some of the birds arrived in a "high" state. On one torrid afternoon the expressman handed me a well-wrapped carton, took an appreciative whiff and said, "I'd like a taste of that cheese when you cut it."

Not all the hawks were "dead on arrival." Wayne came home one evening carrying what looked like a limp bundle of black feathers. "It's a melanistic phase of the western red-tailed hawk,"

he told me. "One of the college boys found it wounded. Maybe we can keep it alive long enough to make paintings and photographs from life." The bird had a badly shattered wing and several body wounds. Wayne cleaned the injuries and supported the trailing wing with one of my nylon hose snatched from the mending basket. Then he fed the hawk some of our uncooked steak dinner. He next put newspapers and our camping tarp across a corner of the living room, placed the hawk thereon, and surveyed his work with approval.

In my innocence, I truly believed that the hawk would be only a temporary boarder. It did look sick and it was beautifully colored. For just this one night I would give it house room.

So for two weeks "Mellie" was our guest. She was shifted from bookcase corner, to bedroom floor, to under the kitchen table according to our household schedule of activity. The apartment reeked of chlorox but Mellie thrived. She lost her list to port; she ate more of our steak; her wing mended. Wayne decided she was well enough to be placed on an outdoor perch. "That," I promised myself, "is the end of that."

All too soon Wayne returned from a field trip with two baby marsh hawks. Their nest had been in a field which had been mowed several days before. Evidently the mother couldn't find her



"Aristotle," the
screech owl.

nest under the covering of hay for when Wayne discovered it, only two of the baby birds were alive. Their downy white bodies looked pathetically thin and cold; their owl-like heads seemed too large and heavy for their necks. My recently-learned lesson concerning avian house-guests was forgotten. I dumped the contents of my sewing basket, lined it with a woolen muffler and cut minute strips from our fresh veal roast. Wayne fed the baby birds with a pair of tweezers and, weak as they were, their beaks gaped for more. We gave them food every hour and I found myself planning what to name my bird when it grew to colorful, mature hawkhood. "Syrinx," I finally decided. Apparently the birds were too weakened by their long starvation, for when Wayne woke to give them their midnight feeding on the second evening, both were

dead. I cried, and committed myself thenceforth to be hostess to all deserving birds and other animals, *ad infinitum*.

During an interlude, we had bats. A reddish-brown mother bat was found dead on a nearby lawn. Clinging to her body were two plush-gray young, their undersides as pink and naked-looking as any infant I have ever seen. We established these babies on strips of gauze, fastened to an open shoe box. Here the small bats hung head downward, when they weren't being fed milk from an eyedropper. They made a peculiar clicking sound when disturbed which had an almost conversational quality. They were usually quiet and we found them to be well-mannered as long as we had them.

Aristotle, a small screech owl, was another model of animal propriety. Perched on a lamp above Wayne's study table, he quietly watched my husband at work, giving his every move courteous attention, and scarcely moving a feather. Occasionally the little owl flew to the top of the bedroom door and then returned to his lamp perch. Aristotle had had an unfortunate encounter with a small boy and his well-aimed air rifle. As a result, one of the owl's wings was almost useless. Wayne worried over the bird's survival in our sparsely wooded section, so when we went to upstate New York on a visit, Aristotle went along. There we gave him his freedom in a deep woods where we trust he is doing well.

Being a bird-man's wife is never dull. Life is full of surprises. Once I opened the refrigerator, intent on getting ice cubes, but instead, met the cold-eyed stare of an American bittern. Recovering sufficiently to investigate, I found the bird was a dead, unskinned specimen, wrapped in one of my good linen towels! Later the skinning out of game-bird specimens presented me with a conservation problem—how to cook a skinless game-bird. My solution I pass on to those few who may be in the same unlikely situation: drape the fowl with

bacon strips, wrap it in aluminum foil and roast as usual. This works with boned, skinned-out fish as well.

Wayne added other specimens, besides birds, to his scientific collections. He was doing taxonomy work in which he prepared specimens of skunks, coyotes, prairie dogs, and badgers. There is a pungency about a skunk skull boiling on an apartment-sized gas stove which cannot be described. But I remember with a chuckle the time I found a badger leaning casually against the bookcase apparently engrossed in "The Golden Bough."

Wherever Wayne goes he attracts birds as a magnet attracts iron filings. We drove across South Dakota from east to west, en route to Cheyenne for a Wyoming Christmas. All through the west-river range country the highway extends like a taut ribbon from one horizon to the other. Here there are no trees and the only perches for birds are the telephone poles, or fence posts, with their strands of wire. Wayne was deeply impressed by the number and variety of hawks we saw perched on these roadside poles. He noted that we were seldom out of sight of a hovering, or perched,



"Wayne loved Zeus, the golden eagle, on sight."

bird of prey. (It was this first meeting with so many hawks that led to his hawk research later.) We saw western red-tailed hawks in great numbers, together with American rough-legs. They formed our chief topic of conversation at Lead, where we spent one night.

Next day we took a bus trip through the Black Hills and the butte country of Wyoming. Night was falling and we were both dozing when there was a crash of shattered glass and the bus jolted to an abrupt stop. Someone said, "It's a bird!" In that instant, Wayne straightened, wide-awake. He rushed to the front of the bus and picked up the stunned, but otherwise unhurt Montana horned owl, which had flown blindly through the windshield. He carried the owl, lying on its back, the 70 miles to Cheyenne. I thought it a perfect introduction to the personality of my husband when I presented him to my family, carrying a live bird under his arm. "Bubo," the owl, revived amazingly and



Today, few prairie dogs survive, except on the higher, rougher, ranges.

H. W. T.

spent Christmas vacation on a perch in my sister's yard. He went with us on a tour of the Colorado Rockies and made the trip to South Dakota in a loose burlap bag which Wayne carried. Bubo served as a model for numerous photographs and paintings before his release.

When Wayne began his hawk research project, someone gave him a live red-tailed hawk, in perfect condition. We decided to see how "Icarus" would do in training for falconry. I won't dwell on the painstaking steps involved, from carrying on the glove; feeding in answer to a repeated call; flight to the glove for feeding, and finally longer flights on signal. Icarus learned quickly and flew to either of us in response to a particular whistle. His only prey was the ground-squirrel colony which inhabited the campus grounds. We were both devoted to Icarus and mourned when we eventually released him.

All these incidents, it developed, were simply preliminaries to the main event. A six-year-old golden eagle came into Wayne's possession. I don't know if it is possible to sue a bird for alienation of affections, but if it is, I have a good case against "Zeus." Wayne loved him on sight. Zeus weighs about eight pounds, and has a seven-foot wingspread. He has the proud, aloof bearing of all eagles. At first Zeus misinterpreted Wayne's friendly attentions, striking at him with his talons and clicking his beak. But as he realized that this man meant him no harm, the huge bird became as playful and responsive as a young puppy. He ate perched on Wayne's leather-protected arm; flew to him in response to a whistle, and, in fact, duplicated much of Icarus's falconry repertoire.

I admired Zeus for his beauty, but deplored the strain he put upon us economically. His only food was raw meat and his average intake, two to three pounds a day. Since Zeus would have nothing to do with chopped horse meat, his appetite played havoc with our budget. Wayne quietly stopped

smoking and showed me in other economies how he was trying to justify Zeus's presence. When I saw their mutual pleasure in each other's company and noted how Wayne's paintings of Zeus improved through continued association with his model, I withdrew my objections. When we journeyed to New York, Zeus went along in a specially constructed crate and was fed, exercised, and watered at strategic stops. Zeus spent the summer on an upstate New York lake shore, eating woodchucks and pointedly ignoring the curious natives who came in droves to see him. When we came to our new home in Kansas, Zeus accompanied us. The life expectancy of a golden eagle is about 90 years. Zeus is only eight. I predict that before he reaches old age he will be one of the most traveled members of his tribe.

Yes, being the wife of a research ornithologist has its drawbacks. Home is a combination museum, library, laboratory, studio, hospital and guest house. One's original interests are likely to be dwarfed and eventually absorbed into the omnipresent ornithology. But it has its advantages too. I can tolerate personal inconvenience and cramped living quarters when I realize that all outdoors and the living things in it belong to me. They become mine as I learn, through my husband, of the fascinating habits of wild things; of their struggle for a place in the world, and that these animals are individuals, with dispositions as different as yours and mine.

• • •

Wild Ducks Relish Frogs

Reporting in *The Auk* for April, 1949. William H. Longley, a member of the St. Paul Audubon Society, tells of greater scaup ducks diving in a roadside pond near Ortonville, Minnesota in April 1948, but the ducks weren't eating aquatic plants. Longley saw them come up with dormant leopard frogs of which they bolted seven within a few minutes.

A VISIT TO

Moose Hill

A sanctuary superintendent tells the story of three men who once had an interest in birds.

Some of the picturesque paths through the sanctuary are:

- | | |
|---------------------------|------------------------|
| 1. Brewster's Trail. | 4. Evergreen Trail. |
| 2. Trail of the Big Pine. | 5. Forbush Trail. |
| 3. North Swamp Trail. | 6. Meadow Brook Trail. |



All photographs by the author unless otherwise noted.

By John V. Dennis

EVER since the Massachusetts Audubon Society established a bird sanctuary at Moose Hill in 1918, the 200-acre tract has been a great attraction for bird enthusiasts. When I became the sanctuary superintendent two years ago, I quickly learned that my most important duty would be to show people birds; not always an easy task, particularly with small songbirds whose comings and goings are dependent upon the wind, the rain, the cold and the warmth. One group of people drove all the way from Springfield, Massachusetts, just to see a yellow-billed cuckoo. A woman waited anxiously all winter, looking forward to

Headquarters for the 200-acre bird sanctuary at Moose Hill.



hearing the flight song of a woodcock at Moose Hill. A group of school children came just to see a brightly-colored bird. An ardent birder came because he wished to add a golden-winged warbler to his year's list. A woman visitor, who released her pet robin at the sanctuary two weeks before, came back, hoping to see him again.

Approaching Boston from the south along Route No. 1, the motorist will see a sign: *MOOSE HILL BIRD SANCTUARY - TWO MILES*. The great stream of traffic sweeps by, undeviated, unslackened. But occasionally the word, "bird," or the word, "sanctuary," or a combination of the two produce a mental reflex in the motorist which culminates in a grinding of brakes, backing up, and turning off on a new course down the side road.

It might be of interest to go back in memory with me to a hot summer's day, a year ago, to that roadside sanctuary sign. A short wait and a large car stopped for a few moments at the sign, then swung into the side road. After some hesitation the three men in it had decided to visit the bird sanctuary. Each one of them, at some point in his life, had been interested in birds. One, as an

Audubon Junior member could recall, with pleasure, taking bird walks and "coloring in" pictures of birds. Another had visited several zoos, mainly to see the birds. The third, as a boy, had raised pigeons. Whatever their previous interest in birds, they felt that this detour was well worth the trouble, if only they could see live birds and plenty of them.

They followed the road through wooded, hilly country until they came to a pleasant home surrounded by trees and shrubbery. A sign told them that here was the bird sanctuary. Their faces registered disappointment as they climbed out of the car. They failed to see an aviary with parrots and cockatoos, a lake teeming with ducks, or gawky herons, with ridiculously long necks and legs, or even a peacock strutting about the yard. They entered a door where a sign told them to register. Inside there were bird exhibits of various kinds. Rather defeatedly they looked at the stuffed birds until they were greeted by the sanctuary superintendent who offered to show them around.

"Where are the *live* birds?" they asked.

They were told that there were birds

"One group . . . drove 75 miles from Springfield, just to see a yellow-billed cuckoo." Photograph by Hal H. Harrison.



"A woman waited anxiously all winter to hear the flight song of a woodcock." Photograph by W. C. Crich.



outside, but that they had to look for them in the woods and about the grounds.

"There are seven miles of trails leading to various parts of our 200-acre sanctuary," the superintendent explained. "Let me give you each a map, with a list of the birds to be found here printed on the back. I might suggest," he continued, pointing to the map, "that the Brewster Trail is good for ruffed grouse, and the North Swamp Trail is good for woodcock."

"You mean we have to *walk* to see the birds?" asked one man.

"Ordinarily," the superintendent replied, "you can see lots of birds at the feeding stations around the house. But this, being the hottest time of the day, the birds are inactive. It would be your best bet to follow one of the trails and look for them in the woods."

The party started out glumly. The heat was oppressive and mosquitoes appeared from dark recesses among the evergreens to torment them.

"Look for birds in the woods, eh," one said disgustedly. "I can see nothing but trees."

Another moaned, "Ruffed grouse, who wants to see ruffed grouse?"

Descending along the winding trail, they came to a brook. They stopped here to rest, and to bathe their perspiring faces in the cool water.

"Let's go back," one suggested. "There are no birds here and I don't believe there ever were any. I might have been home by now. Got more birds right in my own backyard."

The others needed no urging. They slowly got up and began the climb back to the sanctuary headquarters. When they reached the house, the superintendent was there to greet them. "What luck?" he asked.

But before they could tell him of their disappointing experience, he motioned for them to be silent and pointed to something in the bushes.

"You see that blue-colored bird over there," the superintendent said excitedly. "That's a male indigo bunting, and he's coming to the bird-feeder."

The visitors were suddenly interested in this beautiful azure-colored bird and they watched it closely as it fed. Soon they were seated on lawn chairs, intent upon watching not only the indigo bunting, but many other birds. It was now past the hottest part of the day, and the birds had resumed their activities.

"An ardent birder came because he wanted to add a golden-winged warbler to his list." Photograph by Hal H. Harrison.



The three visitors, for the first time in their lives, saw a rose-breasted grosbeak.



"That one with the raspberry head, that's a purple finch, you say?" the zoo enthusiast inquired of his companion who, as a child, had been an Audubon Junior member.

"Yes, and that bird with him, that's a rose-breasted grosbeak. But for the life of me I can't recall the name of that little one that hangs upside down."

The ex-Junior Audubonite disappeared for a moment to find the sanctuary superintendent.

"What's the bird that hangs upside down?" he asked.

It took a little questioning before the superintendent could decide whether the man had seen a chickadee or a nuthatch. In identifying birds for visitors the superintendent had learned to give free rein to his imagination. One day a woman visitor had asked what bird goes "tweet" three times. Another described a bird she had seen as having the spots of a leopard, the neck of an ostrich and the tail of a boa constrictor. Careful questioning disclosed that she had seen a starling in winter plumage.

Scarcely had the three men settled down again to watching the birds than the most exciting event of the day occurred. A bird with a speckled breast

flew toward them and to their astonishment alighted upon the head of the zoo enthusiast. Next it hopped to the ground where it faced them, fluttering its wings and holding its mouth open. The men got the idea. They hastened to feed the bird with ripe mulberries that they gathered from under a nearby mulberry tree. After swallowing an incredible number of them, the bird flew away. When the superintendent appeared, they told him of the experience. He explained that this was one of several orphaned robins brought to the sanctuary and raised by hand. Some had already reverted to the wild, while others occasionally came to beg for food.

The superintendent went on to tell them of the great success the previous superintendent, Mr. William A. Taylor, had in raising young birds and in taking care of injured ones. So well-known did the sanctuary become, as a bird hospital and nursery, that people for miles around came with birds that needed care. The sanctuary's reputation has continued so that late spring and early summer of each year sees a steady procession of people bringing in young or crippled birds. Some birds have been unwisely taken away from the care of their

A waterway in the sanctuary attracts many kinds of birds.



parents, but the majority are in real trouble, often because of a cat. Then the superintendent told the men visitors about "Sammy," the blue jay. Raised as an orphan at Moose Hill, Sammy stayed on instead of disappearing as the others did. Always up to some mischief, he was continually swooping down on visitors, stealing hairpins, cigarettes and candy. He didn't confine his mischief to the sanctuary, but visited neighboring communities. One day he was up to his usual pranks in the business district of a nearby town. He snatched a cookie from a small girl and was gone before her mother saw what had happened. The little girl had a notoriously vivid imagination so that when she asked her mother for another cookie saying, "A big blue bird just stole mine," her mother didn't believe her. If it hadn't been for a bystander, who vouched for the little girl's story, the mother would have thought her daughter had dreamed up something out of her childish imagination.

The men were anxious to know what had become of Sammy.

"Oh, he hasn't been seen for over two years," the superintendent replied.

"Probably died of old age. We band all the birds we raise as well as hundreds of others we catch in banding traps. Each bird is given a band with a different number and a record is kept by us, as well as at the offices of the U. S. Fish and Wildlife Service in Washington, D. C. You would be surprised how many birds come back here year after year."

The sun had nearly disappeared beyond the western rim of Moose Hill as the men climbed into their car, well satisfied with their visit.

The hopes and expectations of people visiting Moose Hill Sanctuary are important. Their happiness, as with the happiness of all of us, depends upon small things. When they fail in their quest to see a certain bird, they experience one more small frustration among the many in their lives. When they succeed, they are flushed with pleasure and released from the monotony of jobs they detest, or from the cares and worries of a sometimes unpleasant world. Moose Hill can usually be counted upon to provide visitors with an adventure in bird watching, and always it will offer them peace and inspiration.

NATURE IN THE NEWS—continued from page 301

States Agriculture Department, they have spread west to Ohio, north to Maine and south to Virginia. Their most destructive year in the New York area was 1942.

Dr. Curran embarked on his study of what became of the bugs this year after a number of beetle-conscious farmers had written him to inquire what had become of the familiar little pests. He did his field work in units of the Palisades Interstate Park system.

The Raccoon Housing Shortage

Out of 15 den boxes nailed to trees at heights of 35 to 40 feet above the ground, wild raccoons used 87 per cent of them six years after they were put up. In a study at the Swan Lake Experiment Station in southwestern Michigan, Frederick W. Stuever found that the native raccoons did not use the boxes until two years after they were erected.

Reporting in the *Journal of Wildlife Management*, July, 1948, the author concludes:

"There is some evidence that small wooded areas

with a great abundance of good dens may serve as community denning areas for animals (raccoons) which are active over extensive contiguous territory. This is the clue to the possible value of numerous dens in fairly small woodlots. . . ."

Pigeon Aquacade

Nature is filled with surprises. Who, for example, would suspect that pigeons would alight on open water and bathe?

Clarence Cottam, U. S. Fish and Wildlife Service, watching a flock of 16 pigeons bathing and preening on lily pads in a Washington, D. C. pool, saw several birds drop down to the surface of the open water when they found no room to alight on the floating leaves. Reporting in the May-June, 1949 issue of *The Condor*, pp. 150-151, Cottam says that the pigeons had no difficulty in swimming or in taking off from the water "with an upward lunge similar in grace and performance to that of a surface-feeding duck."

EDITOR'S NOTE: On the night of September 11, 1948, hundreds of migratory warblers, vireos, grosbeaks, orioles and other birds struck the Empire State Building which rises 1,265 feet above the streets of New York City. The next day, dead and crippled birds littered the pavements below the world's tallest building, and newspapers headlined the tragedy, wondering at the causes for it.

In an article, "Out of the Night Sky," page 355, *Audubon Magazine*, November-December 1948, Richard M. Pough offered an explanation

for the exceptional bird mortality, based upon weather conditions over the city that night.

A cold, southbound air mass, with which the migratory birds were flying, was met at New York City by a warm, northward flowing air mass which swept up and over the colder, denser air. The birds were forced to fly lower and lower to keep beneath the northbound mass of warm air which presumably would have retarded their southward flight. It is believed that this may have caused many of them to strike the tall building.

Recent speculation about

BIRD M

By John T. Nichols

THERE is sufficient glamour and mystery about the journeys that our native migratory birds make northward each spring to nest, and southward to their wintering grounds, to make a fascinating subject for speculation. An increasing number of factors involved in their migrations are established and understood, but others remain purely hypothetical—matters of individual opinion.

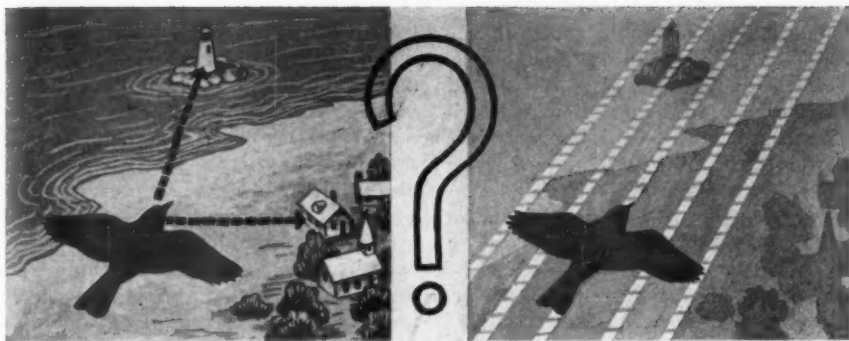
We know, for example, that many individual birds return each year, hundreds, even thousands of miles to nest (or winter) at an identical spot, mayhap in the same tree, the same backyard, or same clump of bushes. We can assume that they will continue to as long as their health and strength permit, or that others of the same species also do so, but we really do not know anything about it.

However, that does not answer the challenging question of how they find their way back, or make the initial selection of territory as young birds of the year. It is reasonable to suppose that a bird knows its home territory within a radius of perhaps five miles in the case of a robin, or 15 in that of a chimney swift. This would explain their nesting in an identical yard, or the same chim-

A WELL-KNOWN AUTHORITY ON BIRDS, AND CURATOR OF FISHES, AMERICAN MUSEUM OF NATURAL HISTORY, SPECULATES ON MIGRATION THEORIES AND THE EFFECT OF WEATHER ON THE TRAVELS OF BIRDS.

ney, in succeeding years. It is a perfectly satisfactory answer to that question, which most of us accept, lacking evidence to the contrary. But a 10 or 30 mile area is a small mark in New York or New England for a bird to hit on a flight reaching from the Gulf Coast, Amazonia, or from Arctic Canada.

There is an explanation that seemed sound 50 years ago (to which some ornithologists still cling tenaciously) of how birds steered their courses over major migratory distances by following known landmarks such as coasts and rivers, which would be visible, even at night, when a majority of land birds are known to make their long passages. This correlated nicely with bird flyways—those geographical lines along which many more migrants are known to pass than over intervening territory. Evidence, sufficient to convince me, has accumulated that the individual bird, except by



Drawing by Robert Seibert

Years ago, most ornithologists believed that birds, in their long spring and fall migrations, found their way between breeding and wintering grounds by landmarks.

Although many scientists still cling to the older view, others believe in a newer theory that birds are guided by electromagnetism, emanating from the earth.

MIGRATION

chance, does not follow an identical course twice in its migrations, and that flyways are no more than rivers of moving birds brought together by the character of the earth below them. For example, on Long Island, New York (the longer axis of which extends eastward into the Atlantic Ocean) southbound birds turn west to avoid flying out to sea, which results in a well-marked flyway from east to west along the south or ocean shoreline there in fall.

After all, the landmark migration hypothesis, attributed to birds, presupposes a little too much of man's reasoning ability to be in line with a bird's probable conscious mental powers. Something that would act more mechanically and subconsciously is, perhaps, more likely. We humans depend on our recognized five senses for data on the outside world from which to shape our actions—data which is easily visualized, compared and rationalized into a course to steer by. Also, there are human mental processes involved which birds probably do not exercise.

The facts of the homing of migratory birds (that of trained pigeons is presumably the same phenomenon) are al-

most or quite impossible to understand without supposing they receive sensory data which man does not. Even more difficult to determine is the sensory mechanism behind the fact that young birds often leave later than their elders on the southward autumn flight, and are not guided by them. Recently Professor Yeagley of the Pennsylvania State College advanced the hypothesis* supported by some experimental evidence, that such data has to do with magnetism, combined with the effect of the earth's rotation. This theory is not, as yet, generally accepted by ornithologists, but to me it seems a step in the right direction. I admit that the evidence for it so far is inconclusive, and that we have no knowledge of any electro-magnetic sense organ in birds. Yet, it is just as difficult to believe that migratory birds are lacking (inherited) appreciation of north and south, as it is to believe that, traveling at night as most do, they figure their direction out from the position of the stars as man might. The only other reliable way that comes to my mind, for them to tell north from south, is as the compass needle does.

* See "A Preliminary Study of a Physical Basis of Bird Navigation" by Henry L. Yeagley, *Journal of Applied Physics*, December, 1947, Vol. 18, No. 12, pp. 1035-1063.

It is generally conceded that the weather has considerable effect on the northward and southward flow of migratory birds. In studying this it should be borne in mind that the date at which each species moves is probably mainly determined by its inward annual cycle of physical or chemical changes, correlated with that of normal seasons. An exceptionally early spring may bring a few stragglers from the South ahead of time, but on the whole, each species arrives each year close to its usual date, although the vegetation may be much advanced by abnormal weather.

There has been interest recently in correlating the influx of migrants in a given area with widespread barometric patterns, rather than with the weather, that is winds and temperatures, in the area in question. For example, in spring, a center of low pressure moving in on the Great Lakes from the West, and more or less stable high pressure along the coast of the southern states, is likely to be correlated with a heavy influx of northbound migrants in New York and New England.

In 1949, from the end of the first week in May to the close of the month, there was a rather notable lack of this usually frequent weather pattern. There were also, disappointingly, few so-called "waves"

of northbound birds in the Northeast, though the vegetation was advanced and there were plenty of clear nights, warm days and more or less southerly winds. Such a correlation between the mentioned weather pattern and bird migration need not imply sensitivity on the bird's part to atmospheric pressure. This weather pattern is associated with approximately parallel isobars (lines of equal barometric pressure) running from southwest to northeast over a wide territory, and these, we are given to understand, are associated with winds which should be increasingly and consistently southwest, as one goes aloft. If the birds had moved at their appointed dates in May, such winds might have drifted them into our area, and lacking them, they may well have passed further west than usual on their northward run.

Speculation, at best, is still only guesswork, based upon the insufficient knowledge we have of how birds find their way over large areas of land and sea. Our theorizing is like trying to round out the lines of an incomplete painting. Some of the lines are struck boldly, others are faint, or broken, and die away into nothingness where only the imagination of man can follow. As long as bird migration remains a mystery, it will continue to challenge our curiosity and our desire to answer an age-old problem.

GULLS SAVED THE WHEAT

A scientific sidelight on the traditional story of how gulls saved early Mormon settlers in Utah from an invasion by the Mormon cricket, has been reported by Federal entomologist, G. T. York. Last season he was investigating one of the troublespots in Montana, including a grain field half in wheat and half in fallow strips with their north ends at a shallow pond.

Grasshoppers were abundant and had begun to injure the crop by chewing the stems just below the developing heads of grain. York estimated that there were about 25 hoppers to the square yard and that many of them moved to the fallow strips to take sun baths. One afternoon he noticed a flock of gulls on the pond. This was the first time that gulls had been seen in that area.

"At 4 p.m." he reports, "at least half of the flock left the pond and flew to the end of one of the fallow strips, in which there were about five hoppers per square yard. The flock moved down the entire half-mile length of the strip in about five minutes." A few minutes later gulls repeated on another fallow strip, after which York was able to find only a few hoppers, mostly males. Almost all the females, heavy with eggs, had fallen to the gulls.

Gulls increased to about 5,000 in the next few days, and when they left five days later the grasshopper threat to the wheat had passed. He noted "a reduction of 80 per cent in five days. . ."

—U. S. Department of Agriculture
Washington, D. C., August 7, 1949.

THE PRESIDENT *Reports* TO YOU

WATERFOWL hunters are to be allowed an increase of ten days in the length of the shooting season in each of the four flyways this fall, but somewhat less of an increase where states choose a split season. The U. S. Fish and Wildlife Service states that its investigations "indicate that a further increase in the supply of ducks and geese can be expected this year." However, the picture of greater hunting pressure compared to a slight increase, if any, in the continental supply of waterfowl was presented officially by the Service at meetings held last winter and spring, as portrayed in the chart reproduced here. Whether the liberalization in

the number of shooting days proves justified will be disclosed by the inventory taken by the Service in January, 1950, after the end of the shooting season.

Bag and possession limits will remain at four per day and eight in possession in the Atlantic and Mississippi flyways (the same as last year) and five and ten in the Pacific flyway. In the central flyway the bag limit has been reduced from five per day and ten in possession to four and eight, as "drought conditions have adversely affected important sections of the breeding grounds in the short grass prairie regions of Saskatchewan and Alberta."

Your Society did not oppose the liberali-

**Waterfowl Hunters
vs. Waterfowl
Population Trends**

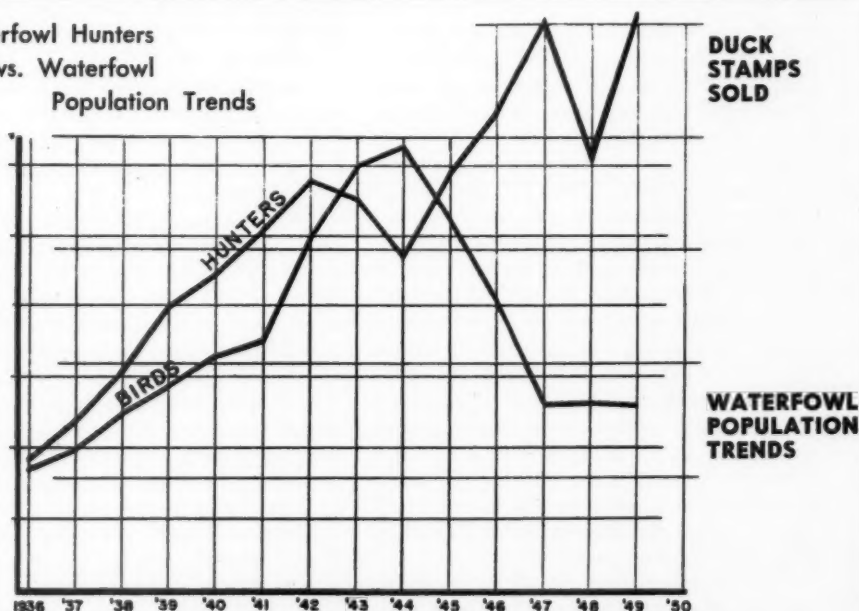


Chart reproduced from "The Status of Migratory Game Birds: 1948-49,"
U. S. Fish and Wildlife Service leaflet, April 1949, Washington, D. C.

zation in the number of shooting days, but did register its opposition again to the following two features of the regulations which are the same as a year ago.

1. Permitting the opening of shooting one-half hour before sunrise (other than on opening day), as that is well-known to be the half hour in which, in most hunting areas, it is easiest to kill the largest number of waterfowl.

2. Retention of possession limit for ducks double the bag limit—an arrangement that makes enforcement of the bag limit exceedingly difficult in many areas, and only benefits those who have to travel considerable distances for their shooting.

The bag limit on Canada geese has, in view of an increase reported by the Service, been raised in the Atlantic flyway states from one to two birds per day, making that limit uniform in all flyways.

In view of a noticeable reduction in the supply of mourning doves, the length of the maximum open season on them has been reduced from 60 to 30 days.

UNFAVORABLE PROVISIONS OF THE DUCK STAMP BILL

Under our democratic form of government, it is the usual way of legislators to compromise issues. Whether this is good policy where an important principle is involved seems highly doubtful. The Duck Stamp Bill, S. 1076, has, at this writing, been sent to the President for signature in a form which provides that up to 25 per cent of lands hereafter acquired with duck stamp funds and established as "wildlife management," rather than "inviolate migratory bird," sanctuaries may be opened to public shooting at the discretion of the Department of the Interior at any time after any such area has been "fully developed as a management area, refuge, reservation or breeding ground," but not before July 1, 1952, and then only when the waterfowl population "is not on a decline." This phraseology leaves considerable room for interpretation.

Another amendment provides that hereafter duck stamp funds can be used only by the Department of the Interior when

and if sums have been appropriated, out of the available total, by the Congress, which will thereby acquire a degree of control over such expenditures that it has not heretofore had. The Senate, with the House concurring, struck out the provision that up to 25 per cent, rather than 10 per cent, of the avails of the sales of the stamps might be used for administrative expenses, including enforcement. This is unfortunate, even though the doubling of the price of the stamp will make available for such administrative expenses, including enforcement, twice as much money as heretofore. Violations have been on the increase and more federal enforcement personnel and equipment are very badly needed.

DAMS—OR NATURAL RESOURCES CONSERVATION?

The following figures, based upon the action of the Senate Appropriations Committee, well illustrate the disproportionate regard of Congress for construction of dams for irrigation, flood control and power purposes, as contrasted with programs of the natural resource conservation agencies. For the 1950 fiscal year, the Senate Committee has approved the following sums: Bureau of Reclamation, \$354,601,000 (nearly 70 per cent of the Interior Department's total appropriation); the National Park Service, \$29,319,000; the Fish and Wildlife Service, \$24,993,000; the Bureau of Land Management, \$5,650,000.

The National Park Service is in dire need of more adequate financing. Its appropriations have fallen far short of requirements created by vastly increased attendance, the establishment of new areas and new functions, the cessation of development during the war and the obvious fact that, today, with the depreciated dollar, greater sums are needed. In 1948, more than 29½ million people visited the areas administered by the National Park Service. In other words, the 1950 appropriation represents about \$1 per annual visitor, and is an increase over the preceding year in excess of \$15,000,000. Additional expenditures include \$7,500,000 for roads and trails, \$3,500,000 for physical improvements



Chelan National Forest, Washington, courtesy U. S. Forest Service.

and \$6,600,000 for the construction of parkways, a total of more than \$15,000,000, thus disclosing that the sum appropriated for all other purposes has actually been reduced from the 1949 fiscal year total.

THE PRIVATE OWNERSHIP LAND PROBLEM

One of the most serious problems in park administration is caused by many private landholdings within the boundaries of the parks. Many of these are so maintained and managed as to constitute eyesores and source points of violations and activities incompatible with the purposes for which the parks have been established. It has been estimated that the acquisition of these lands within the existing parks would cost not less than \$20,000,000, but the sum provided for this purpose in 1950 is only \$300,000. A bill to provide \$2,000,000 each year for this purpose has languished in Congress. The cleaning up of this situation in the parks will not involve relatively large costs, as present day federal government figures go, and it seems to us of far greater immediate importance than, let us say, the

construction of new parkways. It is hoped that the various national conservation organizations, with the full support of their collective memberships, may now join forces to convince Congress of the urgency of acquiring these private holdings within national parks and monuments.

NATIONAL PARK SERVICE POLICY

The National Park Service has a fine set of policy standards, first adopted in 1918, and revised in 1945. One of these is that "primeval parks must be kept free from commercial use, and that sanctuary, scientific and inspirational uses must always take precedence over non-conforming recreational uses." Nevertheless, the bill now before Congress, which would authorize the federal government to acquire lands within approved boundaries of the new Everglades National Park by purchase, condemnation or otherwise, (this with the use of the \$2,000,000 given the government by the State of Florida for that specific purpose) has been stalled by the representations of some half dozen of those land-

owners, supported by some of the members of the Senate Committee on Interior and Insular Affairs. The issue at this writing concerns the term of reservation of mineral rights in the event of sale of those lands to the federal government.

THE MINERAL RIGHTS ISSUE

You will recall that your Society strongly advocated the National Park Service's maintaining its fine policy standards and not granting any mineral right reservations when acquiring such lands. We advocated that it buy the mineral, as well as the surface rights, at fair valuations. We were less concerned about the calculated business risk of permitting mineral reservations (the chance of oil being found in the Everglades National Park area being extremely slight) than about the Service's maintaining its standards and avoiding setting an unfortunate precedent that might lead to similar difficulties in other park areas. The Service, however, entered into a contract with the largest of the landowners in the area, granting mineral right reservations to a date in 1956. It then seemed only fair that other owners in the area be granted the same terms. They, however, are asking for rights until a date in 1963, comparable to the reservations granted by the State of Florida in leases of submerged lands, largely in Florida Bay, in 1943. There is, however, this important difference—the State contracted to give those lands, subject to then existing mineral leases, whereas the protesting private landowners now want to both sell the surface rights and retain the mineral rights until 1963.

Unfortunately, the longer the term of any mineral rights granted, the longer the delay in the proper administration and development of the Everglades National Park. In the meantime, the natural assets of both private and state lands on which mineral rights have not terminated are being progressively exploited and reduced.

The legislation before Congress is supported by the entire Florida congressional delegation, the entire present Florida state

administration, and the officials of the counties in which the park area lies. It is supported by national conservation organizations. It has passed the House, but is before the Senate Committee on Interior and Insular Affairs, of which Senator Joseph C. O'Mahoney of Wyoming is chairman. All the members of the committee hail from western states, where there is considerable resentment about the percentage of total lands owned by the federal government, and about the policy standards of the National Park Service which prevent varied forms of encroachment on and exploitation of National Park and National Monument areas for the temporary benefit of some local citizens. It is sincerely hoped that the National Park Service will be upheld in the final decision of the Congress. At this writing, the prospect is not promising.

INTERSTATE FOREST FIRE CONTROL

This column recently mentioned seemingly desirable legislation providing for congressional consent to an interstate compact, regarding cooperation in forest fire control. This, we are happy to report, has become public law. It is also good news that there has been enacted authority for the U. S. Forest Service to complete and keep current a national survey of forest resources.

The Soleduck "burn," Mount Olympus National Monument. Photograph by Asahel Curtis.





Photograph courtesy of Grazing Service, U. S. Department of the Interior.

DESTRUCTIVE THREATS TO NATIONAL PARKS AND MONUMENTS

The Director of the National Park Service has recently stated that "increasing pressure for breaking down National Park policies and standards involve economic needs in some cases, and sheer promotion in others, and has led to greater and greater demands for the cutting of forests, the grazing of meadows, the damming of streams and lakes, and other destructive uses of the National Parks." For example, there is continued effort to abolish Jackson Hole National Monument in Wyoming, to eliminate virgin rain forest from the Olympic National Park in Washington, to create various water impoundment and diversion proposals which would affect Grand Canyon National Park and Monument and to construct a dam in Kentucky which would flood the lower levels of Mammoth Cave in Mammoth Cave National Park. The saving of all such areas for the inspirational, scientific and recreational purposes for which they were set up requires constant and earnest expression of public opinion in support of the highest policy standards.

OUR DWINDLING SAWTIMBER SUPPLY

The Department of Agriculture has warned in a recent statement that the sawtimber supply of the United States is declining under the impact of an annual cut

which, together with natural losses, is 50 per cent greater than current annual growth—that, moreover, the quality is deteriorating; that the country's long-range potential timber requirements are considerably greater than the present annual cut; that if these needs are to be met, the country should aim to grow, annually, from 18 to 20 billion *cubic feet* of all timber, including 65 to 72 billion *board feet* of sawtimber. Annual growth is now put at 13 billion cubic feet of all timber, including 35 billion board feet of sawtimber.

Speaking of private forest land, there are 62 million acres either denuded or so poorly

Portable sawmill in Superior National Forest, Minnesota, courtesy U. S. Forest Service.



stocked as to be practically idle; prior to 1947 only about 2½ million acres of private land were successfully planted; in 1947 about 114,000 acres were planted. The Service recommends that there be added to the present national forests, and to state and community forests, a considerable acreage of land so badly depleted that it is unlikely private owners will restore them to productive condition.

FOREST CONSERVATION DISTRICTS?

There is a tendency of the Forest Service to seek greater legislative power to force private landowners to follow forest conservation practices. Perhaps this will prove to be the best course, but there is opinion that it might be wiser to set up local conservation districts such as those so successful under the administration of the Soil Conservation Service. These involve persuading groups of landowners, under local leadership, to organize their own Soil Conservation Districts. The landowners themselves then exert the pressure of majority opinion in favor of applying conservation practices within their districts. The federal government supplies technical advice and makes available the services of men and machinery, for which the landowner pays. Whatever the method for attaining the end, there is a great need for forest conservation practices on the great bulk of the privately-owned lands best adapted to timber growth.

KILLING OF ALLIGATORS ON SANCTUARY

To the average resident of coastal Louisiana country, alligators are something to get rid of. Among other things, alligators eat muskrats, and many of the people of that state depend upon fur trapping for a living. Your Society, as you know, maintains that all species of animals and plants are beneficial and that each has its role to play in maintaining that balance in nature which is most beneficial to mankind. It will have been news to many people in Vermilion and nearby Louisiana parishes to learn that on June 28, the Superintendent of the Society's Rainey Wildlife Sanctuary

arrested two men for trespassing and killing alligators on a posted wildlife sanctuary. Charges have been filed against them and each man is now on \$100 bond. They will be tried in the District Court in Abbeville sometime in September. Our Superintendent, Nick Schexnayder, is on the job, for last fall he arrested two men who were shooting blue geese on the sanctuary. They were tried in Abbeville and each fined \$50 and court costs. Through 25 years of watching over the Rainey Sanctuary, we have had the finest cooperation from our neighbors in observing our established policies in protecting all kinds of wildlife. From time to time violations, such as those referred to, demonstrate the continuing need of constant watchfulness and patrol.

RAIDS ON ROOKERIES

In the Tampa Bay area in Florida this season, attempts were made with some success to plunder guarded rookeries of eggs and squabs of ibises and herons, presumably for food. On the outer keys in the Bay, under the protection of the federal government with only "no-landing" signs as warning, the raids on the rookeries were, this year, wholly successful. The pillagers worked in collusion, as evidenced by the actions of a group in luring one of our wardens, covering two keys several miles apart, from one to the other by gunfire and then attempting to sack the key which he had just left. Our good friend, Dr. Herbert R. Mills of Tampa, through whose generosity these Tampa Bay rookeries have been guarded through the years, immediately placed a much faster patrol boat at the disposal of the warden. Your Society will take additional precautions to prevent any possible disturbance to the Alafia Banks, Green Key and Big Bird Key in Tampa Bay during the 1950 nesting season. We have also urged the federal government to take steps to provide adequate guardianship in 1950 of Passage Key and the Indian Key group, containing Tarpon or Bush Key. We recognize from our own experience that it is difficult, with limited funds, personnel and equipment, to completely guard many iso-

Continued on Page 336

Audubon Guide To Bird Attracting

A department in which our readers can share with each other what they have learned about how to attract birds.

By John V. Dennis

LAST winter was mild and open in eastern

Massachusetts. This meant plenty of records of lingering summer bird residents and fewer birds at feeding stations. Bird-banders complained that they had little luck in luring birds to their traps because there was so much for them to eat elsewhere. But in contrast to the experience of many people, birds came in even greater numbers than usual to Moose Hill Sanctuary here in Sharon, Massachusetts. I am not able to explain this easily. I attribute part of it to the fact that birds have been fed here for some 30 years, and that the same birds are in the habit of coming back year after year, often bringing their families with them. We are surrounded by woods on all sides so that there is little opportunity for field-loving birds to forage for food in their natural habitats. But we have carefully planned our feeding program to satisfy

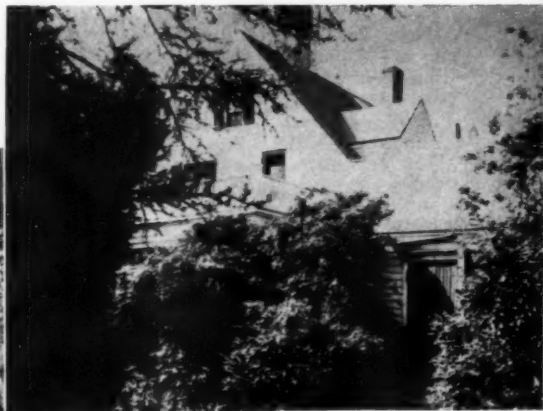
Let's get ready for Winter Feeding

**It pays to be prepared for unusual
wintering birds.**

All photographs by the author unless otherwise noted.

the needs of most birds, so that we are sure of having them whether we have either a mild, or a severe winter.

Part of our success last winter was due to a well-nigh mysterious phenomenon—the winter wanderings of northern finches. Some winters we are treated to great spectacles when, for example, purple finches visit us in unprecedented numbers. Other years, evening grosbeaks, pine siskins, goldfinches or redpolls may arrive. Last winter we had a combination of the last four species, all coming and leaving at different times. Our banding station records keep us fairly well informed as to how many of each species visit our feeders. Last winter I banded more goldfinches than ever before, close to 400. We were not witnessing an "invasion," but we did have a high number of them.



Trees and shrubbery help to bring birds close to the sanctuary headquarters.

When winter comes, fresh food and water must be supplied every day, and the feeders kept free of snow.





Sometimes pine siskins, along with redpolls, evening grosbeaks, and purple finches, visit the feeders. Pine siskin photographed by Hugh M. Halliday.

WHAT CAN YOU OFFER THE BIRDS?

Perhaps you, who are interested in feeding birds, do not have our advantages of adequate space, trees and shrubbery, or birds may not be accustomed to visiting your community in large numbers. Again you may have advantages that we lack. Perhaps you are near a migration route, or you may have a better proportion of woods, open land, and marshes, attractive to birds. Whatever your situation, unless you are in the heart of a great city, it is sure to hold promise.

If you are planning to feed birds this winter, now is the time to get ready. Preparedness pays big dividends. You may have no idea of attracting birds other than sparrows and juncos, but this may be a big winter for northern finches or those very unpredictable wanderers, the red-breasted nuthatch and the Acadian chickadee. Even the black-capped chickadees, tree sparrows and juncos that we can usually count upon have their fluctuations in numbers and we may have exceptional luck in attracting them. Every winter there are a few lingering summer residents that surprise us by turning up at Moose Hill Sanctuary. Chances are that we may find one or more at our feeders; perhaps an orange-crowned warbler, a yellow-breasted chat or a Baltimore oriole. Then too, there are the stragglers, birds far from their homes which might inadvertently turn up at our stations and give us a chance to make a new record.

GETTING THE FEEDING STATIONS READY

Now is the time that we start getting our feeding stations in order for extra winter use. We usually feed the birds all year round so that is not much of a chore for us. I add another peanut butter stick to the cluster of two which has been hanging from a branch in the apple tree all summer. It is now a weekly chore to keep them filled, but soon it will be a daily one. I add another suet rack to make a total of two. This seems adequate for our needs, although I have a neighbor who keeps close to ten. The window feed-

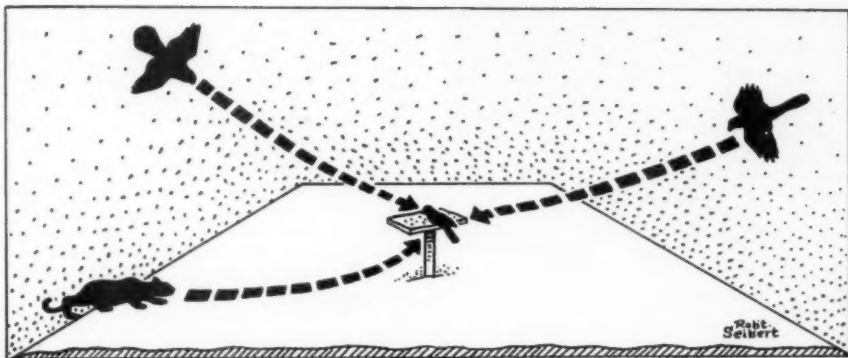
ers (we have six of them) have received comparatively little use during the summer. Now is the time to clean and repair them. Several have glass tops, but these are in place only during bad weather. Birds do not like to enter confining spaces. There are other feeders further from the house as well as the banding station. They need attention too. By the time the winter visitors have arrived all will be in readiness. Then it will be a matter of putting out fresh food daily; getting rid of spoiled food; supplying water; and keeping the feeders free of snow.

Feeding stations should be located to take advantage of such shelter as might be given by sides of buildings, sloping ground, or trees and shrubbery. The side of the house least exposed to winter winds offers the best location if there is cover in the way of suitable foliage. Another consideration is the location best viewed from inside the house. This may require feeders opposite several windows; kitchen, bedroom, dining room and living room. The height of the feeder will influence the use it receives from different species. I have found that evening grosbeaks and purple finches show preference to a window shelf on the second floor. Sparrows generally prefer food placed upon the ground. However, most birds will come to shelves about waist or shoulder high. If birds are unused to coming about one's premises it is best to start feeding operations some distance from the house. In time feeders can be moved closer. Most birds will eventually come to shelves fastened to window sills.

If there is no shrubbery or trees in the yard, or if the amount is not adequate, evergreens can be cut and placed against the side of a building or wherever feeding is to take place. Many people use their old Christmas trees for this purpose.

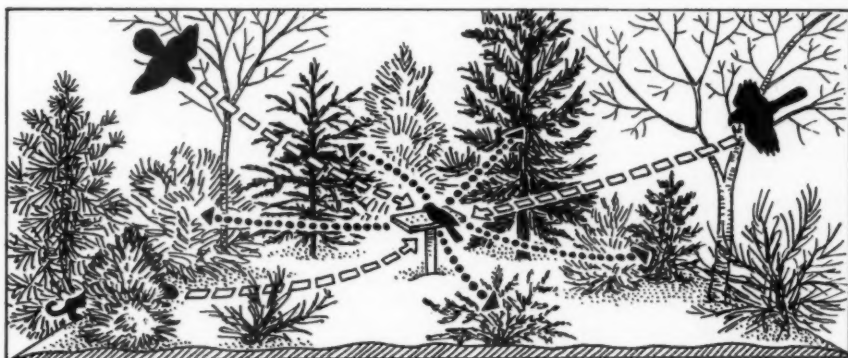
Sunflower seeds are a "must" for evening grosbeaks.





The bird feeding in the open yard (above) is vulnerable to cats, shrikes, bird-hawks and other natural enemies.

(Below) Trees and shrubs offer escape cover and protect birds from successful attacks by predators.



TREES AND SHRUBS NEAR THE FEEDERS

If you have never fed birds before, your preparations might well begin with a survey of your grounds to see if there is an adequate supply of trees, vines and shrubs for shelter. Scanty vegetative cover is the main reason why bird feeding ventures do not succeed. Birds usually cannot be lured away from the foliage that gives them a sense of security. They know from experience that when they are in the open, they are exposed to bird-hawks, shrikes and other enemies. Away from protective plant cover they would also be exposed to the full force of snow, driving rain and cold winds. However, if your home is surrounded by a few arbor vitae, blue spruces, forsythias, elms and maples, you already have a start toward attracting birds. Tree and shrub plantings* should be considered now and planned over the years. A few evergreens planted at places where you may

want to establish your feeding stations will make your feeders much more attractive to birds.

BIRD FOODS FOR THE FEEDING STATION

We use a basic food mixture that will appeal to the largest variety of birds possible. Years ago the Massachusetts Audubon Society formulated its own mixture after extensive experiments here at Moose Hill. There are now many mixtures on the market. You can take your choice of these, or, perhaps, do a little experimenting of your own. Of the wide variety of foods and grains used in mixtures, some deserve special mention. Sunflower seeds were used by some ten species with us last winter. It is a "must" for evening grosbeaks. Ten species of birds were also attracted by cracked corn, wheat, hemp, red millet and large white millet. The most popular of all foods with birds was chopped peanut hearts. Some, particularly goldfinches, desert other favorite foods for peanut hearts and evening grosbeaks stop eating sunflower

* See "More Birds for your Garden," *Audubon Magazine*, July-August 1949, pp. 258-266.



Purple finches also like sunflower seeds.
Photograph by Dorothy M. Compton.

seed long enough to sample them.

Millets and canary seed are very important because they provide grain for birds which are accustomed to eating large quantities of small objects. The mourning dove is an example. Although a large bird, the mourning dove is a gleaner, picking up what other birds have left. Many members of the finch family, accustomed to eating weed seeds, take readily to the smaller grains. Tree sparrows, redpolls, pine siskins, white-throated sparrows, song sparrows and juncos are in this group. Wheat and corn are still important in any mixture. I know of a lady who provides nothing else but these two items, and has fair success. If such aggressive birds as English sparrows, starlings and blue jays are too numerous about window feeders, they can often be lured to a distance by providing a separate feeder on which nothing but corn and wheat is placed. This is something to remember in dealing with squirrels.

COLLECTING NATURAL BIRD FOODS

We might also begin to think about other foods we will put in the feeding stations. A surprising amount can be collected without cost other than your own labors. There are fruits, nuts and berries which will later be buried by the snow if they aren't eaten or stored away during the fall by various birds and mammals. We can do wild creatures a service by storing some ourselves and making the supply available to them when needed most. We have found at Moose Hill that almost any kind of juicy berry is attractive to birds in

the midst of winter, even after we had dried the berries and had stored them away in our attic. And why not pick a few sprigs of bayberry, red cedar, pasture juniper or black alder to see if we can later lure a few hardy bluebirds and robins that have stayed behind? Bittersweet and mountain ash are also fine for that purpose. A stray hermit thrush or myrtle warbler will certainly appreciate our forethought during a raging blizzard. However, we don't gather large quantities of fruits and berries as this might deplete the supply hanging from the trees and shrubs of our sanctuary.

Nuts are highly nourishing and would be more used by birds if they could pierce the hard outer shells. Think of all the food that wintering birds could get for themselves if they could penetrate such hard-shelled nuts as the hickory and walnut! When black walnut kernels are made available to birds, they prefer this food to almost any other. We offer only nuts having soft shells—beechnuts, chestnuts, hazelnuts and acorns. Red-headed woodpeckers, blue jays and nuthatches are among the first to use them. But practically all of our winter bird guests appreciate the nut meats we make available.

APPLE TREES FOR THE BIRDS

After watching our gnarled old apple trees and seeing nearly every bird with us make use of either the fruit, sap, buds, blossoms or insect visitors, I regard the apple as par excellence among trees useful to birds. Evening grosbeaks like to eat the seeds from frozen, half-rotten apples. Our apple trees are favorite loitering spots for them between their visits to our feeders. Each winter evening, at dusk, ruffed grouse come to the apple trees to pick buds from the upper branches. They also like the apples. So do chickadees, nuthatches,

Many members of the finch family, accustomed to eating weed seeds, take readily to the smaller grains.
Tree sparrow photographed by Roger Tory Peterson.





Every winter, a few lingering summer residents may appear at the birdbath or feeders. Baltimore oriole photographed by Helen G. Cruickshank.

downy woodpeckers, cedar waxwings, robins and pine grosbeaks. Why not store away a supply of apples, perhaps a little too worm-eaten or bruised for your own use? Keep them in a cool place and later make them available at your feeding stations.

BIRD FOOD SUBSTITUTES

There are times during the winter when bird food is buried by snow almost as soon as it is put out. Even the most sheltered feeding places are not protected from drifting snow. Quantities of good food go to waste. That is the time to make use of cheaper substitutes. Weed seeds are as good as any. My first experiment was with foxtail grass. I cut the full heads just before they were ripe, spread them out on newspapers to dry, and later rolled them up for storage. The day arrived when my regular food was being buried with discouraging rapidity. I began using foxtail grass then. The goldfinches and tree sparrows quickly made use of it. Now I gather other weeds: chickweed, pigweed, amaranth, ragweed and evening primrose. They are eagerly sought by birds, but I have found no way as yet to obtain enough to meet their needs for any length of time.

Another source of food may be in your vegetable or flower garden. Even if you haven't given particular thought to planting for birds, there may be some flowers and vegetables which you can leave standing after they have gone to seed. Among flowers, the seeds of sunflowers, coreopsis, bachelor's buttons, zinnias, cosmos, marigolds and asters are especially attractive to birds. If you have salsify, turnips or lettuce in your vegetable garden you might let a few of them go to seed. Goldfinches are known as lettuce birds, and with

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good reason. Unharvested corn has a wide appeal for birds and mammals, while stacked fodder offers excellent cover.

I have by no means exhausted the possibilities of utilizing natural foods for our feeding program this winter. I might even suggest saving watermelon, cantaloupe, squash and pumpkin seeds. And, of course, good beef suet should never be thrown away.

So it is that once we have established a suitable environment for birds, preparedness and attention to detail pay off. We will be ready for whatever the winter may bring, be it northern finches, lingering summer residents or stragglers from the West. We will have the satisfaction of making life more possible for these birds whose survival is ever threatened by death from cold and starvation. For ourselves it will bring excitement and pleasure to relieve dull winter days. There is always the early morning anticipation that the new day will bring something new, and it usually does.

SOME BASIC RULES

1. Make preparations well in advance, before cold weather sets in.
2. Furnish food and water every day.
3. Furnish food abundantly and in several places.
4. Meet the taste and food requirements of all visitors.
5. Supply grit.
6. Redouble efforts during bad weather.
7. Never discontinue feeding during the winter.
8. Provide essential vegetative cover.

Navy Bombs Blast Minnesota Moose Ponds

The Minnesota State Division of Game and Fish requested help this summer from the Naval Air Station at Wold-Chamberlain Field, when it was found that moose in the Red Lake Game Preserve were suffering from lack of water. During the summer the 3,000-square-mile bog often dries up and moose are without protection from blackflies, deerflies, and midges. Without deep water in which to escape from insect tormentors, moose frequently are blinded and starve to death. To relieve them, the Navy dropped 1,000-lb. bombs on the bog area to open deep craters which will provide protection and drinking water for the moose herd. The Navy operation blasted seven deep craters, averaging 100 feet in diameter.

While this is the first known time that military bombing has been used for game conservation practices, the method may have other uses, such as creating nesting ponds for ducks in similar bog regions.

Dooryards for Adventure

Here is a list* of books which open the gates to new worlds, "just outside your window."

By Helen B. Ross

FOR a long time I have thought about compiling a list of books that would be about nature in the backyard—about things—"as local as a woodchuck"—or about creatures as available to most of us as chipping sparrows in the dooryard. I think there is a need for discovering these kinds of books, or perhaps for knowing them better even though we might have known them once a long time ago. They point—not at unattainable horizons—but at our feet. Here, they say, is a world as exciting as a tropical forest, as unprobed as the depths of the seas.

There are people who will visit zoos, yet never notice the small creatures all about them—creatures more interesting than a caged lion or tiger because they are in their natural habitats, living normal lives. There are persons who would "love to study nature" if they just had the time, yet they travel between their work and their homes without seeing the birds, insects, and plants all about them. There are people who attend botanical exhibits yet pay little attention to the interesting plants that may be found in their own yards. Others dream of going on an exciting expedition to China or Africa or South America to see the wonders of natural history there, yet they have never opened their eyes to the drama of the ferocious Chinese mantis in their own yards; to the local American cousins of the African ants going about their



Drawings by Robert Seibert

business; to our native birds which will be heading for Mexico and South America in a short time to spend the winter.

There are undoubtedly many other books that should be placed on this list—possibly someone

* Most of these books should be available at your local library.

else would eliminate some that have been included. Books are always colored by the reader's interpretations, preferences and experiences. All of those I have included are collections of essays. There are many other books available which provide information on the identification and life habits of the plants and animals in the wonder world just outside your window, but mine were selected for the way in which the authors make you feel that right in your own backyard lies adventure.

NATURAL HISTORY OF SELBOURNE

by Gilbert White (1707-1793)

Gilbert White was one of the earliest of the nature writers who described local events. His "Natural History of Selbourne" is composed of letters to Charles Pennant and Daines Barrington. These



letters dealt with common everyday things around Selbourne, a Selbourne limited in area by poor roads. Though the book is couched in the language of the eighteenth century, the method of presentation is a natural one and you feel the freshness of White's interest in the things about him.

THE OPEN AIR

by Richard Jefferies (1848-1887)

Richard Jefferies, another English author, was unhappy and dissatisfied and his writings reflect his restlessness. He wrote of social problems and of nature and the out-of-doors, without drawing a line between them. Many of his essays are like modern paintings, starkly realistic, intensely interesting, and far from beautiful. At the same time that he was observing and writing on the beauties of the English countryside he was portraying the injustices of his social order. Thus he presents Roger, "The New Voter," against a background of bad beer and English summertime.

In the same book he develops his idea on how to study nature. In the chapter, *Outdoors in February*, he says: "During a twelvemonth probably

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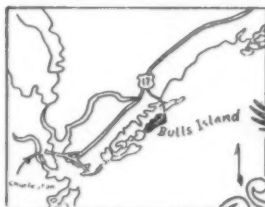


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every creature would pass over a given locality, every creature that is not confined to certain places. The whole army of the woods and hedges marches across a single farm in twelve months. A single tree—especially an old tree is visited by 4/5 of the birds that ever perch in the course of that period. . . . It is difficult to believe that one would not see more by extending the journey, but, in fact, experience proves that the longer a single locality is studied the more is found on it. You should know the places in winter as well as tempting summer. . . . You should face the mire and slippery path."

BIRDS AND POETS WINTER SUNSHINE

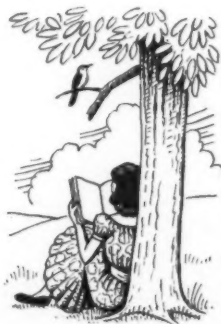
by John Burroughs (1837-1921)

John Burroughs traveled widely but his writings reflect a constant at-homeness with the out-of-doors, regardless of locality. In "Birds and Poets" he describes with much humor "our rural divinity," the cow, as he knew her while he worked in Washington, D. C. In "Winter Sunshine" he describes, among other things, tracks in the snow. When he has finished, you too, are ready to go out and search for the mouse that left the record of his activities in the snow for you to read.

EVERYDAY EXPERIENCES RUNAWAY DAYS

by Samuel Scoville

Samuel Scoville also wrote about tracks in the snow. In "Everyday Experiences" he describes the tracks left by such creatures as mice, foxes, shrews, owls, and rabbits.



In another part of the same book he describes a bird walk. It is the kind of bird walk that many persons have taken many times—a walk begun with high hopes and expectations and ended with a list of seven birds observed! But Scoville had fun on his bird walk and you have fun going with him and observing little, casual things along the path in addition to the birds.

Scoville has a gift of seeing adventure in everyday things and sharing it with you. Nowhere does he do this better than in "Runaway Days" in the essay in which he describes birds migrating over the Philadelphia business district one starlit night. His essays are entertaining, and after reading them, even if you do not hear the migrating birds you may still hear the stars.



BIRDS IN THE BUSH AN OLD ROAD

by Bradford Torrey (1843-1912)

Bradford Torrey begins "Birds in the Bush" by saying, "As I was crossing Boston Common some years ago, my attention was caught by the unusual behavior of a robin." If men can see nature in great cities like Boston or Philadelphia, then surely every place must have some things to offer.

In "An Old Road" Bradford Torrey says, "I fall out with people who profess to care nothing for a path when walking through the woods. . . . The real tour of discovery (is the one) wherein one keeps to the beaten road, looks at customary sights, but brings home a new idea." There is nothing difficult about this but it offers plenty of challenge.

WALK, LOOK AND LISTEN NOW THAT WE HAVE TO WALK DOORWAY TO NATURE

by Raymond T. Fuller

The very titles of Fuller's books express the philosophy that nature is right at hand. In "Doorway to Nature" he says that 62 per cent of the population live in towns and cities but that "wherever the city, the town, the neighborhood in which you live you have no valid excuse because of its location for putting off first-hand acquaintance with nature. It is astonishing how small the diameter of a city's cankering influence, how close to town wild roots go and wood folk creep! . . . But why not start with your own backyard?"

Fuller's chapters are all short and deal with simple, common things. His writing lacks the sparkle of Dallas Lore Sharp or of Scoville or Torrey, but he certainly has caught the philosophy of nature study.

AN ACCOUNT WITH NATURE

by Dallas Lore Sharp (1870-1929)

Of all the nature writers Dallas Lore Sharp probably is the most expert essayist. His works are built on little things, on trivial matters. In "An Account with Nature," he writes, "Why, I had hardly known Chipmunk at all! He had always been too common," and he proceeds to tell how he became acquainted with Chipmunk who lived in his wall and stole his strawberries. In another place he describes his garden trials. Anyone who has struggled to raise a garden would feel a kinship with Dallas Lore Sharp after reading his account and would probably enjoy a chuckle or two next time he met the marauding woodchuck or wily worm in his well-cultivated beds.

GRASSROOT JUNGLES

by Edwin Way Teale

Edwin Way Teale begins "Grassroot Jungles," "At our very feet, often unnoticed in the rush of daily events is the wonder world of insects. Among the tangled weeds of the roadside or in the grassroot jungles of your own backyard you encounter strange and incredible forms of life." The pages that follow describe some of these interesting insects.

A LOT OF INSECTS

by Frank Lutz (1879-1943)

In the preface to "A Lot of Insects" Frank Lutz says, "These expeditions took me at most only a few feet from our house and frequently lasted only a few minutes. The laboratory was sometimes in our cellar, sometimes in one of the flower beds or on the lawn." In the book he presents some of the 1,402 species of insects which he observed in his backyard—the same backyard which won first prize in the community backyard contest. The book is simple and entertaining with a delightfully humorous touch.

HELP BOYS AND GIRLS

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THE PRESIDENT REPORTS TO YOU—continued from page 326

lated small keys, and that has been the federal government's problem on the western coast of Florida.

NEW BRANCH AUDUBON SOCIETIES

The number of your Society's branches has been growing apace. In a year's time, there have been 14 new branches and the total is now 36. Some of these were newly organized; others have converted from an affiliated to a branch status. They are:

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San Diego Audubon Society (Calif.)
St. Cloud Audubon Society (Minn.)
Madison Audubon Society (Wisc.)
Stevens County Audubon Society (Minn.)
Buffalo Audubon Society (N. Y.)

Minneapolis Bird Club (Minn.)
San Bernardino Valley Audubon Society (Calif.)
Audubon Society of the Everglades (Florida)
Orleans Audubon Society (La.)
Santa Clara Valley Audubon Society (Calif.)

ANNUAL CONVENTION NOTE—1949

The Detroit Committee on Arrangements for the Society's 1949 annual convention is actively and enthusiastically promoting a great event. Programs should reach all members in September and the dates of the convention are Saturday, October 15, through Tuesday, October 18. We expect very large attendance on the part of our members and friends in the midwestern states and the Province of Ontario. Don't fail to put these dates on your calendar now, and do plan to be with us!

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MYSTERY MAMMAL—continued from page 288

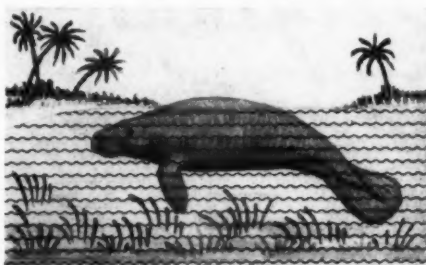
Unless persecuted, the manatee frequently shows little fear of man. Individuals sometimes appear in the most unlikely places, some of them heavily populated. An old bull, for instance, has often been seen in the Miami River in the heart of that city, its hide scarred by contact with propeller blades and smeared with refuse oil. The manatee is an air-breathing animal so that polluted water does not harm it as much as a creature living below the surface.

The manatee now has no commercial importance, but like most other creatures it has a significance to other animals and plants with which it is associated. Its beeflike flesh is edible, and Indians and whites alike usually smoked manatee flesh before they ate it.

Its strangeness and bizarre appearance, its mode of life and special adaptation all combine to make the manatee an object of considerable attraction to the nature student. The very fact that it is an American animal and has a place in our fauna is graifying.

Its future today is uncertain, but there is no reason why this condition need continue. If

enough effort were put forth, there would be no difficulty in preserving the manatee indefinitely. There has been some attempt made to



save it already—there are laws protecting the animal—but there is insufficient warden protection and enforcement. One of the greatest advances in the preservation of the Florida manatee has been the establishment of the Everglades National Park, embracing practically all of the manatee's range.

Reprinted from Miami Herald, April 29, 1949

SEA COWS MAKING COMBACK Ancients Called Them Mermaids

By Stephen Trumbull

The recent blast of public indignation over an attempt to harpoon a manatee in the Miami River has brought a flood of questions from Florida newcomers.

"What are these critters?" they ask, "And why don't they put on free floor shows in our rivers back home like they do down here under the Miami Avenue bridge?"

So, after consulting such varied authorities as Dr. F. G. Walton Smith of the University of Miami Marine Laboratories; Charles Brookfield of the Audubon Society, and some back-country Crackers who smacked their lips over manatee steaks until the law interfered we came up with this dissertation.

Several million years ago, the manatee's family lived on land and probably was fairly close kin to the elephant's ancestors of that day. . . . While the elephant branch was spending generations developing a trunk, the manatee

branch was developing flippers and a mermaid-type tail to enable it to browse along river banks and feed on aquatic greens. Neither branch developed any real beauty, but the elephant appears to have done best in the matter of intelligence. . . .

Manatee, or sea cow steak, was regarded as a delicacy by the (Florida) pioneers. . . . For a time the slaughter rate was so high that the animals disappeared from some regions. That's why it was necessary for Bradenton to call on Miami in an attempt to get a specimen for a fiesta in Manatee county, named after the animal.

It was the attempt to collect this desired exhibit here that caused the furore. Miamians just wouldn't go along on the proposal to carry one of our animals across the state—probably mortally wounded—to share honors with some bathing beauties.

Dr. Smith believes that excessive drainage, killing off the natural vegetation on which manatees lived, is even more responsible for the dwindled sea cow population than is man's guns. In areas of protection, like Miami, the animals are making a comeback. Dan Beard, superintendent of the Everglades National Park to the south, says he has seen several specimens there recently—both calves and adults. . . .

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Letters

We have had so many beautiful letters of tribute to our late editor that we regret there isn't sufficient space to print them all, in one or several issues of *Audubon Magazine*. We are grateful to our readers, contributing authors, and members of the Society for their sympathy.—*The Editor*.

Page 189 of the May-June issue of *Audubon Magazine* has a sentence that is apt to be misleading, namely: "As soon as a bird is strong enough, it should be allowed to forage for itself and should be turned loose as soon as it is able to fly." (*Italics mine*)

Young birds are able to fly quite well a considerable time before the need of parental care ceases. As I write this, we are considerably upset by the cries of two young towhees, now in their third day without food. Too big for us to catch, too small to feed themselves they will doubtless starve.

It should be stressed that the foster-parent's care is needed after the young bird is freed; that liberation is not simply a matter of opening a door or window. It should be remembered that the young bird, lacking the instruction the wild one receives from its natural parent, is at first bewildered by its new freedom.

Our limited experience with bird foundlings indicates a period of about six weeks from hatching to freedom, and a further one of about three weeks before the bird completely severs its relationship with its foster-parent. During this latter period a few "hand-outs" each day will ease the transition to natural life without causing the bird to become a dependent. Where such post-graduate care cannot be given, the bird's ability to feed itself should be beyond all doubt.

MORRIS JACKSON

Fanny Bay, British Columbia

Today I received my May-June issue of *Audubon Magazine* and while only a recent subscriber, am thoroughly satisfied with it. The magazine's articles are not only interesting, intelligently written, and informative, but the general layout is so excellent and appealing to the eye, that it ranks in the class of the major commercial magazines.

LEONARD ZEITZ

Brooklyn, New York

We, too, noted the unfortunate error (*Audubon Magazine*, March-April 1949) in the spelling of Mr. Hadley's name in the review of his excellent little book on Indiana birds, but thought that he was so well-known in Indiana that Hoosiers would understand.

Most of us in Indiana were very happy to see this booklet appear, since this is the first publication of its kind by the State since Amos Butler's "Birds of Indiana," published by the old Depart-

ment of Geology and Natural Resources in 1898. These descriptions of our resident birds first appeared in the Conservation Department's magazine, *Outdoor Indiana*. That the birds included are permanent residents is stated in the first sentence of the introduction to the booklet. Mr. Hadley's series on the summer birds is now appearing in *Outdoor Indiana* and it is hoped that, in the near future, this series will also appear in booklet form. The modest cost (ten cents) of this little book has made

it available to thousands who otherwise would have none at all.

HOWARD F. WRIGHT

Indiana Audubon Society
Indianapolis, Indiana

I read with much interest "Who's Who on the Night Shift" by Lewis Wayne Walker in the May-June issue. It should be read by those who think owls are good only for "targets."

Memphis, Tennessee

SCOTT HUTCHISON

ABOUT THE AUTHORS

Alexander Sprunt, Jr. (*Mystery Mammal—The Florida Manatee*) is familiar to most *Audubon Magazine* readers, not only for his many published articles and books on wildlife, but for his long association with the National Audubon Society conducting wildlife tours and Audubon Screen Tour lectures. During the past summer, he instructed on the subject of birds at the Audubon Nature Camp, Kerrville, Texas.

Some of our authors have packed a lot of adventures into their lives! Charlton Ogburn, Jr., (*Birds in Java*) a 38-year old former classmate of Louis J. Halle, Jr., with offices near Halle's in the State Department, once made a survey of birdlife in the Great Smoky Mountains, went to Brazil on a gold-mining venture, served in the United States Army in India, and marched 500 miles with Merrill's Marauders in the Burma campaign in the recent war. Of the Burmese experience, he says: "... My only pleasant memory is of the rolling, jungly cries of the blue-crowned barbets and the flash of yellow pinions when hornbills flew across the trails—a phenomenon which . . . always froze us in our tracks owing to the similarity of the swishing of a hornbill's wings to the sound made by a Japanese 70-mm. shell . . ."

His observations recounted in *Birds in Java*, resulted from "snatches of time" he was able to take from meetings at Batavia, Java, in 1947-48 where he was United States representative on a United Nations Committee working to achieve a peaceful settlement between the Dutch and the Indonesian Republicans. With previous articles in *The Atlantic Monthly*, *The Reader's Digest*, and other publications, this is Mr. Ogburn's first appearance in *Audubon Magazine*.

Ruth Louise Hine (*Out of the Classroom into the Woods*) received a B.A. from Connecticut College and an M.A. in zoology from the University of Wisconsin. Her experiences include camp counselor and museum work, attendance at Audubon Nature Camps, research on tropical fish, teaching in the Zoology Department at the University of Wisconsin, and assisting in the Department of Wildlife Management. At present Miss Hine is working on a small mammal population study and continuing her work towards a Ph.D. We hope she gets her degree and that *Audubon Magazine* will get an article about her mammal studies.

Donald Culross Peattie (*The Sycamore*) has been hard at work on two new books, "American Heartwood," to appear in October 1949, and "A Natural History of Trees" to be published in the spring of 1950, and from which this article, *The Sycamore*, has been taken.

As a writer about nature and the history of his country, Mr. Peattie is best known. He specialized in botany at Harvard University and now lives in Santa Barbara, California, with his novelist wife and three sons. His travels as a "roving editor" for *The Reader's Digest* take him into many states.

Lynn (Helen) Trimm (*Bird-man's Wife*), a native of South Dakota, taught kindergarten at Sioux Falls, and is now "housewifing" for her husband, Wayne, whom she married in 1946. Her bird-watching is confined largely to the cardinals and Baltimore orioles that are visible from her young son Steve's play yard. She says "... The Trimm apartment has gained by one room and has harbored the usual transient guests: a baby skunk, *Tabu*; a young coyote, *Shag*; a great blue heron, golden pheasant, and numerous lizards, skinks, and snakes." This is Mrs. Trimm's first article for *Audubon Magazine*.

Her artist husband, brought up among a family of portrait painters in Syracuse, New York, majored in ornithology at Cornell University and will soon be affiliated with the Kansas Commission of Forestry, Fish and Game. He was the first president of the Sioux Falls Bird Club and helped form the South Dakota Ornithologists' Union. Artists George M. Sutton and Francis Lee Jaques gave constructive criticisms to Mr. Trimm's wildlife paintings, many of which have been widely shown.

John V. Dennis (*A Visit to Moose Hill and Let's Get Ready for Winter Feeding*) has been with the Massachusetts Audubon Society for the past three years. He is married and has a three-year-old daughter who is already able to identify a number of birds. On August 18, Mr. Dennis stopped in Audubon House to tell us he was off on a birding trip to Arkansas. On his return he expects to attend the University of Florida where he will work for his Ph.D. during the coming year. We are sure that our readers join us in wishing John success and that he will send us more of his bird-attracting articles, soon to form the substance of a book.



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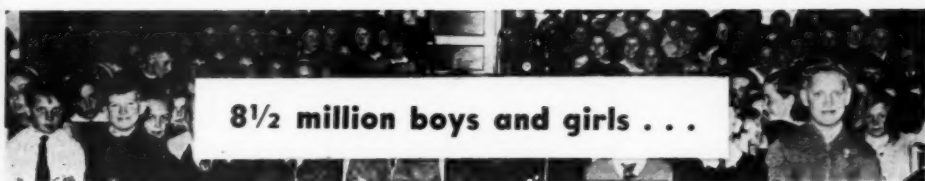
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Christmas CARDS



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1949 Audubon Western Christmas Card

A reproduction of the Western Tanager from an original painting by Roger Tory Peterson (may be seen on page 34 of the Jan-Feb 1949 issue of Audubon Magazine).

The western tanager summers from Canada s. to mts of S. Calif., s. Arizona, N. M., and w. Texas; winters in Mex.

Card measures $4\frac{1}{2}'' \times 6\frac{1}{4}''$ complete with envelope, 15¢ each. Please add 10¢ for postage.

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